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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPELLANT: Reber

ATTY. DOCKET NO.: HOB-P-04-001

SERIAL NO.: 10/771,890

GROUP ART UNIT: 3625

DATE FILED: February 4, 2004

EXAMINER: Allen

INVENTION: "A SYSTEM AND A METHOD FOR LOCATING AN ITEM OFFERED  
FOR SALE BY A MERCHANT"

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
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APPELLANT'S APPEAL BRIEF TRANSMITTAL LETTER

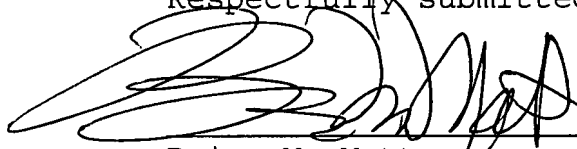
SIR/MADAM:

Appellant submits herewith Appellant's Appeal Brief in response to the Notification of Non-Compliant Appeal Brief mailed on August 14, 2007. This Appeal Brief has been amended to overcome the Examiner's reasons for non-compliance, namely the Status of Amendments section has been amended. Appellant's Appeal Brief is in support of the Notice of Appeal filed April 13, 2007.

The required fee for filing Appellant's Appeal Brief was paid on June 5, 2007. Therefore, Appellant submits that no fee is required for filing Appellant's Appeal Brief. However, Appellant authorizes the Patent Office to charge any fees that may be due and owing or to credit any overpayment to Deposit Account No. 50-0595.

A duplicate copy of this sheet is enclosed for this purpose.

Respectfully submitted,

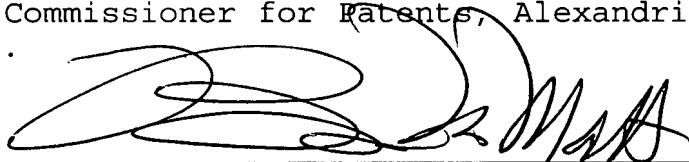


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**CERTIFICATE OF MAILING**

I hereby certify that this **APPEAL BRIEF with CLAIMS APPENDIX CONTAINING CLAIMS 1-20, EVIDENCE APPENDIX CONTAINING EXHIBITS A, B, C, D and E, RELATED PROCEEDINGS APPENDIX AND RETURN RECEIPT POSTCARD** are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, Alexandria, VA 22313 on August 22, 2007.



Brian M. Mattson (Reg. No. 35,018)



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**APPEAL BRIEF**

SIR/MADAM:

This Appeal Brief is submitted in response to the Notice of Non-Compliant Appeal Brief dated August 14, 2007 and in support of the Notice of Appeal dated April 13, 2007. The Appeal was taken from a Final Rejection dated March 23, 2007.

**I. REAL PARTY IN INTEREST**

Hobie Reber is the real party in interest in this Appeal.

**II. RELATED APPEALS AND INTERFERENCES**

No other appeals or interferences are known to Appellant or Appellant's legal representative which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Claims 1-20 are pending in this patent application. A copy of the claims is appended hereto in the Claims Appendix. Claims 1-20 were finally rejected in an Office Action dated March 23, 2007 and

are hereby on appeal. The Final Rejection is appended hereto as Exhibit A of the Evidence Appendix.

#### **IV. STATUS OF AMENDMENTS**

All amendments have been entered in this patent application. No amendments to the claims were made after the Final Rejection.

#### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention provides a system and a method to identify available products offered for sale by a merchant (page 9, lines 8-10). More specifically, the system provides information about the products and/or services offered for sale by the merchant located within a multi-dealer retail establishment (page 9, lines 10-14). Further, the system may be accessed from any computer terminal which affords network accessible capabilities (page 9, lines 14-17). Still further, the system and method accesses an inventory of a merchant to locate an availability and/or a price of the product and/or service offered for sale by the merchant (page 9, lines 19-22).

Independent Claim 1 defines a system 10 for determining a location of an item offered for sale by a merchant in a multi-dealer retail establishment (page 9, lines 23-26). Claim 1 requires a computer network and a database 14 associated with the computer network (page 12, lines 30-33). Figure 1 illustrates a system 10 having a database 14 that may be accessed through a website 18 (page 10, lines 23-25).

Additionally, Claim 1 requires that the database 14 stores merchant information associated with merchants who are located within the multi-dealer retail establishment (page 12, lines 15-17). The merchant information includes the location of the merchant within the multi-dealer retail establishment (page 13, lines 16 and 17). The merchant may create a product list on the database 18 via step 40 and/or store the product list in the database 14 via step 46 (page 14, lines 16-18).

Claim 1 further requires a computer terminal with network accessible capabilities (page 13, lines 5-7). The computer terminal may access the database 14 and the accompanying merchant and product information (page 13, line 33 and page 14, lines 1-5). The user may access the website 18 of the system 10 from the computer terminal having the network accessible capabilities with the user interface 22 and/or may log onto the website 18 via step 72 (page 17, lines 6-9).

A merchant may create a merchant account 34 via the website 18 and input merchant information, which may include the location of the merchant within a multi-dealer retail establishment (page 13, lines 13-18). After creating a merchant account 34, the merchant may create a product list 40 and enter pictures and/or descriptions of products 44 before storing information in the database 14 (page 14 lines 16-18).

Moreover, Claim 1 requires that the computer terminal is

remote with respect to the database and determines the location of the item in the multi-dealer retail establishment by searching the item information in the database wherein the item information is associated with the location of the merchant in the multi-dealer retail establishment (page 3, lines 25-28). A user or merchant may remotely access the website 18 and the database 14 from a computer terminal, such as, for example, a laptop computer, a personal digital assistant, a cellular telephone and/or the like (page 12, lines 19-22).

Independent Claim 8 requires a method for locating an item offered for sale by a merchant in a multi-dealer retail establishment by a user wherein the merchant has a location within the multi-dealer retail establishment (page 3, lines 29-33 and page 4, lines 1-2). Claim 8 requires the steps of providing a computer network and providing a database connected to the computer network. Figure 1 illustrates a system 10 having a database 14 that may be accessed through a website 18 (page 10, lines 23-25). A user may access the website 18 of system 10 from the computer terminal having the network accessible capabilities with the user interface 22 and/or may log on to the website 18 via step 72 (page 17, lines 6-9).

Additionally, Claim 8 requires that the database stores merchant information associated with the merchant and further wherein the merchant information has the location of the merchant

within the multi-dealer retail establishment (page 4, lines 28-33). Further, Claim 8 requires inputting a product list of the merchant into the merchant information in the database wherein the product list has item information associated with items offered for sale by the merchant (page 11, lines 7 and 8). A merchant may create a merchant account 34 via the website 18 and input merchant information which may include the location of the merchant within a multi-dealer retail establishment (page 13, lines 13-18). After creating a merchant account 34, the merchant may also create a product list 40 and enter pictures and/or descriptions of products 44 before storing information in the database 14 (page 14 lines 16-26).

Still further, Claim 8 requires that the method provide a terminal in the multi-dealer retail establishment wherein the terminal accesses the database for displaying the merchant information of the merchant in the database via the computer network (page 3, lines 25-33). Moreover, Claim 8 requires the step of searching the product list in the merchant information based on the item information associated with the item (page 5, lines 8-10). A user may search the system 10 from a computer terminal local to the multi-dealer retail establishment (page 6, lines 29-32). The system 10 may also include a user interface 22 which may allow the user to access the website 18 and/or the database 14 (page 10, lines 23-25). The user may search the database 14 by entering item

or merchant information on the website 18 (page 18, lines 3-5). The website 18 may display item or merchant information from the database 14 corresponding to the user's query (page 18, lines 5-11). Further, a list of products in the database 14 which match the search criteria may be displayed by the website 18 on the computer terminal via step 92 (page 19, lines 24-26).

Furthermore, Claim 8 requires that the method determine the location of the merchant in the multi-dealer retail establishment based on the merchant information associated with the item information in the product list (page 5, lines 10-13). Figure 4 illustrates a flowchart 120 of a method for a user to search the product lists of merchants and/or item information stored in the database 14 of the system 10 (page 21, lines 12-15). A user may access a map of the multi-dealer retail establishment in the database 14 and view the location of the item and the merchant offering the selected item for sale via step 102 (page 20, lines 19-22). Moreover, the user may obtain directions from the location of the user to the location of the merchant offering the selected item for sale via step 102 (page 20, lines 22-25).

Dependent Claim 2 requires the system of Claim 1 wherein the computer network is the internet (page 4, lines 3 and 4).

Dependent Claim 3 defines a remote server wherein the database 14 is contained on the remote server (page 4, lines 5 and 6).

Dependent Claim 4 defines a means for modifying the merchant

information in the database 14 (page 4, lines 9 and 10).

Dependent Claim 5 defines a password associated with the merchant for accessing the merchant information in the database 14 (page 13, lines 28-33 and page 14, lines 1-2).

Dependent Claim 6 defines an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map (page 20, lines 15-22).

Dependent Claim 7 defines a means for inputting an image associated with the item into the item information in the database 14 and a means for accessing the image associated with the item in the database 14 from the computer terminal (page 14, lines 24-26 and page 23, lines 18-22).

Dependent Claim 9 requires the method of Claim 8 wherein the computer network is the internet (page 4, lines 3 and 4).

Dependent Claim 10 requires the method of Claim 8 wherein the access to the database 14 is wireless (page 5, lines 16 and 17).

Dependent Claim 11 defines providing a remote server and storing the database 14 on the remote server (page 4, lines 5 and 6).

Dependent Claim 12 defines providing a second access to the database 14 for modifying the merchant information in the database 14 via the computer network (page 5, lines 21-24).

Dependent Claim 13 requires the method of Claim 8 wherein the

access is from a remote computer terminal with respect to the database 14 (page 5, lines 21-24).

Dependent Claim 14 defines providing a password for accessing the merchant information in the database 14 via the computer system (page 13, lines 28-33 and page 14, lines 1-2).

Dependent Claim 15 requires the method of Claim 8 wherein the terminal accesses the database 14 is via a computer website on the computer network wherein the computer website is remote with respect to the database 14 (page 12, lines 15-29).

Dependent Claim 16 defines displaying the location of the merchant in the multi-dealer retail establishment on a map wherein the map is associated with the multi-dealer retail establishment (page 20, lines 15-22).

Dependent Claim 17 defines downloading an image into the item information of the item in the database 14 via the computer network wherein the image is associated with the item (page 14, lines 24-26 and page 23, lines 18-22).

Dependent Claim 18 requires the method of Claim 8 wherein the item information includes geographical information associated with the item for sale by the merchant (page 6, lines 9-11).

Dependent Claim 19 requires inputting user information into the database 14 via the computer system wherein the user information is associated with the user searching the product list in the merchant information based on the user information (page 10,

lines 23-32).

Dependent Claim 20 requires inputting an inventory of the merchant into the database 14 via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system (page 16, lines 3-24).

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Would Claims 1-3, 8-11, 13, 15 and 18 have been obvious under 35 U.S.C. §103(a) to one having ordinary skill in the art at the time of Appellant's invention over *Chang et al.* (U.S. Patent Publication No. 2003/0110078) in view of *Russell* (U.S. Patent Publication No. 2002/0083061)? See *Chang et al.* attached as Exhibit B of the Evidence Appendix. See *Russell* attached as Exhibit C of the Evidence Appendix.

2. Would Claims 4, 5, 7, 12, 14, 17, 19 and 20 have been obvious under 35 U.S.C. §103(a) to one having ordinary skill in the art at the time of Appellant's invention over *Chang et al.* in view of *Russell* as applied to Claims 1 and 8, and further in view of *Pugliese III et al.* (U.S. Patent Publication No. 2001/0044751). See *Pugliese III et al.* attached as Exhibit D of the Evidence Appendix.

3. Would Claims 6 and 16 have been obvious under 35 U.S.C. §103(a) to one having ordinary skill in the art at the time of

Appellant's invention over *Chang* in view of *Russell* and in further view of Crossman, Craig, ("Look, Listen and Interact with Multimedia." *Austin American Statesman* March 21, 1994, Page D6; hereinafter "892u")? See 892u attached as Exhibit E of the Evidence Appendix.

## **VII. ARGUMENT**

### **A. THE CITED REFERENCES AND REJECTIONS OF CLAIMS 1-3, 8-11, 13, 15, and 18 UNDER 35 U.S.C. §103(a)**

Independent Claim 1 and dependent Claims 2, 3, 8-11, 13, 15 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell*.

The Examiner stated:

Regarding Claim 1, *Chang* teaches a system for locating and determining an availability and location of an item offered for sale in a shopping mall comprising: providing a computer network; a database associated with the network (; wherein the merchant information is associated with the location of each one of the plurality of merchants wherein the merchants are located only within the interior space of the multi dealer retail establishment; wherein the item information is associated with a description of the item and a price of the item wherein each one of the plurality of items is only locatable within the interior space of the multi dealer retail establishment; a computer terminal located in the multi-dealer retail establishment and wherein the computer terminal connects the computer to the computer network and enables access to item information and merchant information and further wherein the computer terminal is remote with respect to the database and determines the location of the item in the multi-dealer retail establishment by searching the item information in the database wherein the item information is associated with the location of

the merchant in the multi-dealer retail establishment.

(See pages 4 and 5 of Final Rejection dated March 23, 2007).

**B. CLAIMS 1-3, 8-11, 13, 15, and 18 WOULD NOT HAVE BEEN OBVIOUS UNDER 35 U.S.C. §103(a) TO ONE OF ORDINARY SKILL IN THE ART AT THE TIME OF APPELLANT'S INVENTION IN VIEW OF *CHANG ET AL.* AND *RUSSELL*, TAKEN SINGLY OR IN COMBINATION**

With respect to the rejection of Claims 1-3, 8-11, 13, 15, and 18 under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell*, Appellant respectfully submits that the claims distinctly define the present invention from *Chang et al.* and *Russell*, taken singly or in combination, for the reasons that follow.

Independent Claim 1 requires a multi-dealer retail establishment that is defined by walls. Independent Claim 1 further requires a means for inputting merchant information that covers merchant location within the multi-dealer retail establishment and item information that covers the description and the price of the item for sale. Independent Claim 1 further requires that the merchant and item information includes merchants and items that are only located within the multi-dealer retail establishment.

Independent Claim 1 further requires a computer terminal which is located within the multi-dealer retail establishment. Independent Claim 1 further requires a database that is located separate from the computer terminal and contains the merchant and

item information drawn from the plurality of merchants that are located within the interior space of the multi-dealer retail establishment. Independent Claim 1 further requires that the item information include the location of the item and the price of the item. Moreover, independent Claim 1 requires that the computer terminal may access the merchant and item information by searching through the database.

*Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver. The user creates a command using a remote control device and product data is subsequently displayed on a shopping computer ([0008], lines 1-3). The shopping computer can further include information on the product's price and physical location within a store ([0010], lines 4-7). Product information can be downloaded to portable memory media via the shopping computer and inserted into an information kiosk at a shopping center to determine product location and price ([0025], lines 3-8).

On page 5 of the Final Rejection, the Examiner notes that *Chang et al.* lack an explicit teaching of a means for inputting merchant information and a means for inputting item information. However, *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshow (abstract, lines 1-2). Computer systems may be set up at a tradeshow for uses to search product information and obtain a copy of the search result ([0010],

lines 8-10). Information is collected prior to the tradeshow or uploaded to a website and is then electronically compiled into a database, preferably on CD-ROM or uploaded to a website ([0009] lines 7-9 and 12-15).

Nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a multi-dealer retail establishment that is defined by walls as required by independent Claim 1. Further, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a means for inputting merchant and item information that covers merchants in a multi-dealer retail establishment defined by walls and an interior space wherein the availability and the location of the item are determined only within the interior space of the multi-dealer retail establishment, as required by independent Claim 1. Still further, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a computer terminal located within a multi-dealer retail establishment defined by walls and an interior space that allows a user to search for items for sale within the multi-dealer retail establishment, as required by independent Claim 1. Moreover, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a computer terminal that may access a separately-located database that contains merchant and item information covering merchants and items located within a multi-dealer retail establishment, as required by independent Claim 1.

Moreover, a person of ordinary skill in the art at the time of Appellant's invention would never have been motivated to combine *Chang et al.* and *Russell* in the manner suggested by the Examiner in formulating the rejection under 35 U.S.C. §103(a). *Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver and *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshow, whereas Appellant's invention teaches a system to input merchant and item information into a computer terminal wherein the merchant and item information only includes merchants and items within the interior space of a multi-dealer retail establishment. It is submitted that the question under §103(a) is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the reference in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

With the analysis of the deficiencies of *Chang et al.* and *Russell*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to combine *Chang et al.* with *Russell* to produce the claimed invention. *Chang et al.* teach a system and method for broadcast advertising in the field of advertising and *Russell* teaches a method for providing searchable electronic databases in the field of tradeshow and similar events. *Prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a). Therefore, Appellant submits that the rejection of independent Claim 1 under 35 U.S.C. §103(a) is improper and should be reversed.

Independent Claim 8 requires a multi-dealer retail establishment that is defined by walls and contains items for sale only within the interior space of the multi-dealer retail establishment. Independent Claim 8 further requires a database connected to a computer network that contains merchant information including the location of only merchants located within the interior space of the multi-dealer retail establishment. Independent Claim 8 further requires inputting the merchants' product lists into the database wherein the product lists only cover items that are for sale within the interior space of the multi-dealer retail establishment.

Independent Claim 8 further requires a terminal that is only located within the interior space of the multi-dealer retail establishment and may display the merchant and item information contained in the database. Moreover, independent Claim 8 requires that a user may search merchant and item information from the database via the terminal wherein the merchant and item information is drawn only from merchants and items within the interior space of the multi-dealer retail establishment.

*Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver. The user creates a command using a remote control device and product data is subsequently displayed on a shopping computer ([0008], lines 1-3). The shopping computer can further include information on the product's price and physical location within a store ([0010], lines 4-7). Product information can be downloaded to portable memory media via the shopping computer and inserted into an information kiosk at a shopping center to determine product location and price ([0025], lines 3-8).

On page 5 of the Final Rejection, the Examiner notes that *Chang et al.* lack an explicit teaching of inputting a product list of the merchant into the merchant information in the database. However, *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshow (abstract, lines 1-2). Computer systems may be set up at a tradeshow for uses to search

product information and obtain a copy of the search result ([0010], lines 8-10). Information is collected prior to the tradeshow or uploaded to a website and is then electronically compiled into a database, preferably on CD-ROM or uploaded to a website ([0009], lines 7-9 and 12-15).

Nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a multi-dealer retail establishment that is defined by walls as required by independent Claim 8. Further, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest a means for inputting merchant and item information wherein the availability and the location of the merchants and items are determined only within the interior space of the multi-dealer retail establishment, as required by independent Claim 8. Still further, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest providing a computer terminal located within the interior walls a multi-dealer retail establishment that allows a user to search for items for sale within the multi-dealer retail establishment, as required by independent Claim 8. Moreover, nowhere do *Chang et al.* and *Russell*, taken singly or in combination, teach or suggest providing a computer terminal that may access a database that contains merchant and item information covering merchants and items located within the interior space of a multi-dealer retail establishment, as required by independent Claim 8.

Moreover, a person of ordinary skill in the art at the time of Appellant's invention would never have been motivated to combine *Chang et al.* and *Russell* in the manner suggested by the Examiner in formulating the rejection under 35 U.S.C. §103(a). *Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver and *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshows, whereas Appellant's invention teaches a system to input merchant and item information into a computer terminal wherein the merchant and item information only includes merchants and items within the interior space of a multi-dealer retail establishment. It is submitted that the question under §103(a) is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the reference in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

With the analysis of the deficiencies of *Chang et al.* and *Russell*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to modify *Chang et al.* and *Russell* to produce the claimed invention. *Chang et al.* teach a system and method for broadcast advertising in the field of advertising and *Russell* teaches a method for providing searchable electronic databases in the field of tradeshow and similar events. *Prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a). Therefore, Appellant submits that the rejection of independent Claim 8 under 35 U.S.C. §103(a) is improper and should be reversed.

Dependent Claim 2 requires that the computer network is the internet wherein the database associated with the computer network holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail establishment. On page 7 of the Final Rejection, the Examiner alleges that *Chang et al.* in view of *Russell* teach that the computer network is the internet. However, *Chang et al.* merely teach that information can be retrieved from an internet database ([0023], lines 6 and 7) and *Russell* merely teaches that the collected information can be uploaded on a web page ([0009], lines 12-14). Therefore, nowhere do *Chang et al.* nor *Russell*, taken singly or in combination, teach or suggest that the computer

network is the internet wherein the database associated with the computer network holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail establishment, as required by dependent Claim 2.

Dependent Claim 3 requires a remote server wherein the database is contained on the remote server and further wherein the database holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail establishment. On page 7 of the Final Rejection, the Examiner alleges that *Russell* teaches a remote server for maintaining the database and a website for access to the database. However, *Russell* merely teaches that the database may be electronically stored on a CD, computer hard drive, PDA, or uploaded on a webpage ([0007], lines 14-17). Therefore, nowhere does *Russell* teach or suggest a remote server wherein the database is stored on the remote server and further wherein the database holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail establishment, as required by dependent Claim 3.

Dependent Claim 9 requires that the computer network is the internet wherein the database associated with the computer network holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail

establishment. On page 7 of the Final Rejection, the Examiner alleges that *Chang et al.* in view of *Russell* teach that the computer network is the internet. However, *Chang et al.* merely teach that information can be retrieved from an internet database ([0023], lines 6 and 7) and *Russell* merely teaches that the collected information can be uploaded on a web page ([0009], lines 12-14). Therefore, nowhere does *Chang et al.* nor *Russell*, taken singly or in combination, teach or suggest that the computer network is the internet wherein the database associated with the computer network holds merchant and item information wherein the merchants and items are only located within the interior walls of a multi-dealer retail establishment, as required by dependent Claim 9.

Dependent Claim 10 requires that the access to the database is wireless wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 7 of the Final Rejection, the Examiner alleges that *Russell* teaches a database that may be accessed on a wireless network. While *Russell* teaches that the database may be accessed wirelessly ([0013] lines 6 and 7), nowhere does *Russell* teach that the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by dependent Claim 10.

Dependent Claim 11 requires providing a remote server and storing the database on the remote server wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 7 of the Final Rejection, the Examiner alleges that *Russell* teaches a remote server for maintaining the database and a website for access to the database. However, *Russell* merely teaches that the database may be electronically stored on a CD, computer hard drive, PDA, or uploaded on a webpage wherein the database includes information relating to a tradeshow ([0007], lines 14-17 and [0009], lines 1-3). Therefore, nowhere does *Russell* teach or suggest a remote server wherein the database is stored on the remote server wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by dependent Claim 11.

Dependent Claim 13 requires an access from a remote computer terminal with respect to the database wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 11 of the Final Rejection, the Examiner alleges that *Chang et al.* in view of *Russell* teach that the first access is from a remote computer terminal with respect to the database. However, *Chang et al.* merely teach a remote shopping computer that receives

information on product data to which shippers indicate interest([0007], lines 1-8) and *Russell* merely teaches that "computer systems may be provided at the tradeshow for users to perform a search on the database and obtain a copy of the search result" ([0010], lines 9-11). Therefore, nowhere do *Chang et al.* or *Russell*, taken singly or in combination, teach or suggest an access from a remote computer terminal with respect to the database wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by dependent Claim 13.

Dependent Claim 15 requires that the terminal accesses the database via a computer website on the computer network wherein the computer website is remote with respect to the database wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 11 of the Final Rejection, the Examiner alleges that *Chang et al.* in view of *Russell* teach a computer website providing access to the database wherein the computer website is remote with respect to the database. However, *Russell* merely teaches that a "user may use the computer system or wireless network to access the web page" that contains the database ([0012], lines 1, 2 and 7-9). Therefore, nowhere do *Chang et al.* or *Russell*, taken singly or in combination, teach or suggest that

the terminal accesses the database via a computer website on the computer network wherein the computer website is remote with respect to the database wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by dependent Claim 15.

Dependent Claim 18 requires that the item information includes geographical information associated with the item for sale by the merchant wherein the geographical information only covers items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 11 of the Final Rejection, the Examiner alleges that *Chang et al.* in view of *Russell* teach that item information includes geographical information associated with the item for sale by the merchant. However, *Chang et al.* merely teach that users can input portable memory media into a shopping computer which then determines the stores in which the items contained on the portable memory media can be found ([0025], lines 1-10). Therefore, nowhere do *Chang et al.* or *Russell*, taken singly or in combination, teach or suggest that the item information includes geographical information associated with the item for sale by the merchant wherein the geographical information only covers items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by dependent Claim 18.

Moreover, a person of ordinary skill in the art at the time of Appellant's invention would never have been motivated to combine *Chang et al.* with *Russell* in the manner suggested by the Examiner in formulating the rejection under 35 U.S.C. §103(a). *Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver and *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshows, whereas Appellant's invention teaches a system to input merchant and item information into a computer terminal wherein the merchant and item information include only merchants and items available within the interior space of a multi-dealer retail establishment. It is submitted that the question under §103(a) is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the reference in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

With the analysis of the deficiencies of *Chang et al.* and *Russell*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to combine *Chang et al.* with *Russell* to produce the claimed invention. *Chang et al.* teach a system and method for broadcast advertising in the field of advertising and *Russell* teaches a method for providing searchable electronic databases in the field of tradeshow and similar events. Therefore, *prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a).

Dependent Claims 2, 3, 9-11, 13, 15 and 18 are further believed allowable over the references of record for the same reasons set forth above with respect to independent Claims 1 and 8. Dependent Claims 2, 3, 9-11, 13, 15 and 18 set forth additional novel elements of Appellant's system. Therefore, Appellant submits that the rejection of dependent Claims 2, 3, 9-11, 13, 15 and 18 under 35 U.S.C. §103(a) is improper and should be reversed.

**C. THE CITED REFERENCES AND REJECTIONS OF CLAIMS 4, 5, 7, 12, 14, 17, 19 and 20 UNDER 35 U.S.C. §103(a)**

Dependent Claims 4, 5, 7, 12, 14, 17, 19 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell* as applied to Claims 1 and 8 above, and further in view of *Pugliese III et al.*

The Examiner stated:

Regarding Claim 4, ... *Pugliese* teaches a mall kiosk available to shoppers (see at least: abstract). *Pugliese* further teaches a merchant or "merchant administrator" with the ability to logon and update the merchant information in the database, and thereby teaches means for modifying the merchant information.

Regarding Claims 5 and 14, ... *Pugliese* teaches a registered merchant or merchant administrator logging into the ShopLive system and updating merchant information (see at least: abstract, 0275, 0277, 0334-0336, 0340-0341, Fig. 21). *Pugliese* further teaches wherein the merchant may receive their password via email when using the lost password request function (see at least: 0332, Fig. 20 #100 and #106).

Regarding Claim 7, ... *Pugliese* teaches a means for inputting an image associated with the item information in database and a means for accessing the image associated with the item in the database from the computer terminal (see at least: 0271-0272, 0279, 0368, Fig. 15, claim 14).

Regarding Claim 12, ... *Pugliese* teaches a merchant or "merchant administrator" with the ability to logon and update the merchant information in the database, and thereby teaches providing a second access to the database for modifying the merchant information via the computer network.

Regarding Claim 17, ... *Pugliese* teaches downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item (see at least: 0271-0272, 0279, 0368, Fig. 15).

Regarding Claim 19, ... *Pugliese* teaches inputting user information into the database via the computer system wherein the information is associated with the user and searching the product list in the merchant information based on the user information (see at least: 0013, 0117, 0143, 0177-0179, 0206).

Regarding Claim 20, ... *Pugliese* teaches inputting inventory of the merchant into the database via the computer system wherein the inventory is associated

with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system (see at least: 0099, 0126, 0140).

(See pages 12-16 of Final Rejection dated March 23, 2007).

**D. CLAIMS 4, 5, 7, 12, 14, 17, 19 and 20 WOULD NOT HAVE BEEN OBVIOUS UNDER 35 U.S.C. §103(a) TO ONE OF ORDINARY SKILL IN THE ART AT THE TIME OF APPELLANT'S INVENTION IN VIEW OF BRUNSON AND RUSSELL, AND IN FURTHER VIEW OF PUGLIESE III et al., TAKEN SINGLY OR IN COMBINATION**

With respect to the rejection of Claims 4, 5, 7, 12, 14, 17, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell* as applied to Claims 1 and 8 above, and further in view of *Pugliese III et al.*, Appellant respectfully submits that the claims distinctly define the present invention from *Chang et al.*, *Russell* and *Pugliese III et al.*, taken singly or in combination, for the reasons that follow.

Dependent Claim 4 requires a means for modifying the merchant information in the database wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On page 12 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach a means for modifying the merchant information in the database via the computer network and alleges that *Pugliese III et al.* teach a means for modifying the merchant information. However, although *Pugliese III et al.* teach that a merchant is able to login to the application

and update existing products in their respective catalogues (see [0275]), the merchant and the products are not confined to a multi-dealer retail establishment. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest that a means for modifying the merchant information in the database wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by dependent Claim 4.

Dependent Claim 5 requires a password associated with the merchant for accessing the merchant information in the database wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On page 13 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach a password associated with the merchant for accessing the merchant information in the database and alleges that *Pugliese III et al.* teach that the merchant may receive their password via email when using the lost password request function. However, *Pugliese III et al.* merely teach that the "lost password processing function processes a request for a lost password from a shopper or merchant and then sends the password via email to the shopper as requested" ([0332]) and does not explicitly require a password associated with the merchant. Therefore, nowhere do *Chang*

*et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest a password associated with the merchant for accessing the merchant information in the database wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 5.

Dependent Claim 7 requires a means for inputting an image associated with the item into the item information in the database and a means for accessing the image associated with the item in the database from the computer terminal wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On pages 13 and 14 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach a means for inputting an image associated with the item into the item information in the database and a means for accessing the image associated with the item in the database from the computer terminal and alleges that *Pugliese III et al.* teach a means for inputting an image associated with the item into the item information in the database and a means for accessing the image associated with the item in the database from the computer terminal.

However, although *Pugliese III et al.* teach that merchants have "[p]roduct image loading [that] allows products to have images

associated with them" ([0279]), the merchants and the products are not confined to the interior space of a multi-dealer retail establishment. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest a means for inputting an image associated with the item into the item information in the database and a means for accessing the image associated with the item in the database from the computer terminal wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 7.

Dependent Claim 12 requires providing a second access to the database for modifying the merchant information in the database via the computer network wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment. On page 14 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach a means for providing a second access to the database for modifying the merchant information in the database via the computer network and alleges that *Pugliese III et al.* teach a means for providing a second access to the database for modifying the merchant information in the database via the computer network.

However, although *Pugliese III et al.* teach a merchant information system that "manages the registration of merchants, locations and departments" ([0334]), nowhere does *Pugliese III et al.* teach that the merchant information is stored on a database or that the merchant information can be modified via the computer network. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest providing a second access to the database for modifying the merchant information in the database via the computer network wherein the database contains merchant and item information covering items for sale by merchants within the interior space of a multi-dealer retail establishment, as required by Claim 12.

Dependent Claim 14 requires providing a password for accessing the merchant information in the database via the computer system wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On page 13 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach a password associated with the merchant for accessing the merchant information in the database and alleges that *Pugliese III et al.* teach that the merchant may receive their password via email when using the lost password request function.

However, *Pugliese III et al.* merely teach that the "lost password processing function processes a request for a lost

password from a shopper or merchant and then sends the password via email to the shopper as requested" ([0332]) and does not explicitly require a password associated with the merchant. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest providing a password for accessing the merchant information in the database via the computer system wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 14.

Dependent Claim 17 requires downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On page 15 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item and alleges that *Pugliese III et al.* teach downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item.

However, although *Pugliese III et al.* teach that merchants "have the ability to upload true-color images associated with the products in their catalogs" ([0279]), the merchants and the products are not confined to the interior space of a multi-dealer retail establishment. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 17.

Dependent Claim 19 requires inputting user information into the database via the computer system wherein the user information is associated with the user and searching the product list in the merchant information based on the user information wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On pages 15 and 16 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach inputting user information into the database via the computer system wherein the user information is associated with the user and searching the product list in the merchant information based on the user information and alleges that

*Pugliese III et al.* teach inputting user information into the database via the computer system wherein the user information is associated with the user and searching the product list in the merchant information based on the user information.

However, *Pugliese III et al.* merely teach a manage personal folder function that stores user information and allows users to "maintain a list of products and merchants of interest to themselves" ([0206]), and does not teach a system to input the user information into the database via the computer network. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest inputting user information into the database via the computer system wherein the user information is associated with the user and searching the product list in the merchant information based on the user information wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 19.

Dependent Claim 20 requires inputting an inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system wherein the database holds merchant and item information

covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment. On page 16 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach inputting an inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system and alleges that *Pugliese III et al.* teach inputting an inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system.

However, *Pugliese III et al.* merely teach an external inventory system and an inventory access system that provides the ability to query catalog inventory availability at a store location level ([0126]), and does not teach a system to input the inventory of the merchant into the database via the computer system. Therefore, nowhere do *Chang et al.*, *Russell* nor *Pugliese III et al.*, taken singly or in combination, teach or suggest inputting an inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for

sale and modifying the inventory of the merchant via the computer system wherein the database holds merchant and item information covering merchants and items that are only located within the interior walls of a multi-dealer retail establishment, as required by Claim 20.

Moreover, a person of ordinary skill in the art at the time of Appellant's invention would never have been motivated to combine *Chang et al.*, *Russell* and *Pugliese III et al.* in the manner suggested by the Examiner in formulating the rejection under 35 U.S.C. §103(a). *Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver, *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshow and *Pugliese III et al.* merely teach a shopping system to aid shoppers locate and determine the availability of products contained anywhere, whereas Appellant's invention teaches a system to input merchant and item information into a computer terminal wherein the merchant and item information only includes merchants and items within the interior space of a multi-dealer retail establishment. It is submitted that the question under §103(a) is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the reference in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

With the analysis of the deficiencies of *Chang et al.*, *Russell* and *Pugliese III et al.*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to combine *Chang et al.*, *Russell* and *Pugliese III et al.* to produce the claimed invention. *Chang et al.* teach a system and method for broadcast advertising in the field of advertising, *Russell* teaches a method for providing searchable electronic databases in the field of tradeshow and similar events and *Pugliese III et al.* teach a shopping system to help shoppers locate products over a shopping network. Therefore, *prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a).

Dependent Claims 4, 5, 7, 12, 14, 17, 19 and 20 are further believed allowable over the references of record for the same reasons set forth above with respect to independent Claims 1 and 8.

Dependent Claims 4, 5, 7, 12, 14, 17, 19 and 20 set forth additional novel elements of Appellant's system. Therefore, Appellant submits that the rejection of dependent Claims 4, 5, 7, 12, 14, 17, 19 and 20 under 35 U.S.C. §103(a) is improper and should be reversed.

**E. THE CITED REFERENCES AND REJECTIONS OF CLAIMS 6 and 16 UNDER  
35 U.S.C. §103(a)**

Dependent Claims 6 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell* as applied to Claims 1 and 8, and further in view of *892u*.

The Examiner stated:

Regarding Claims 6 and 16, *Chang et al.* in view of *Russell* teaches locating an item in a multi retailer establishment. *Russell* further teaches how providing a map can be advantageous for shoppers to locate vendors and items. ... *892u* teaches a mall kiosk equipped with a touch screen monitor. *892u* further teaches a window on the monitor of the mall kiosk that provides a sales assistant for providing the location of a desired product and an animated (i.e. electronic map) on the touch screen showing current location and how to get to the store containing desired product.

(See page 18 of Final Rejection dated March 23, 2007).

**F. CLAIMS 6 and 16 WOULD NOT HAVE BEEN OBVIOUS UNDER 35 U.S.C.  
§103(a) TO ONE OF ORDINARY SKILL IN THE ART AT THE TIME OF  
APPELLANT'S INVENTION IN VIEW OF *CHANG ET AL.*, *RUSSELL* and *892u*,  
TAKEN SINGLY OR IN COMBINATION**

With respect to the rejection of Claims 6 and 16 under 35 U.S.C. §103(a) as being unpatentable over *Chang et al.* in view of *Russell* as applied to claims 1 and 8, and in further view of 892u, Appellant respectfully submits that the claims distinctly define the present invention from *Chang et al.*, *Russell* and 892u, taken singly or in combination, for the reasons that follow.

Dependent Claim 6 requires an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map wherein the map displays merchants located only within the interior walls of a multi-dealer retail establishment. On page 18 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map and alleges that 892u teach an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map.

However, 892u merely teaches a kiosk at a mall that may display an animated map that shows a shopper's location and how to get to a store, but does not teach a merchant's location associated with items for sale by that merchant. Therefore, nowhere do *Chang et al.*, *Russell* nor 892u, taken singly or in combination, teach or

suggest an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map wherein the map displays merchants located only within the interior walls of a multi-dealer retail establishment, as required by Claim 6.

Dependent Claim 16 requires displaying the location of the merchant in the multi-dealer retail establishment on a map wherein the map is associated with the multi-dealer retail establishment and further wherein the map displays merchants located only within the interior walls of a multi-dealer retail establishment. On page 18 of the Final Rejection, the Examiner admits that *Chang et al.* in view of *Russell* does not expressly teach an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map and alleges that *892u* teach an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map.

However, *892u* merely teaches a kiosk at a mall that may display an animated map that shows a shopper's location and how to get to a store, but does not teach a merchant's location associated with items for sale by that merchant. Therefore, nowhere do *Chang et al.*, *Russell* nor *892u*, taken singly or in combination, teach or suggest displaying the location of the merchant in the multi-dealer

retail establishment on a map wherein the map is associated with the multi-dealer retail establishment and further wherein the map displays merchants located only within the interior walls of a multi-dealer retail establishment, as required by Claim 16.

Moreover, a person of ordinary skill in the art at the time of Appellant's invention would never have been motivated to combine *Chang et al.*, *Russell* and *892u* in the manner suggested by the Examiner in formulating the rejection under 35 U.S.C. §103(a). *Chang et al.* merely teach a method for facilitating shopping by broadcasting shopping information to a broadcast receiver, *Russell* merely teaches a method for providing searchable electronic databases for use in tradeshow and *892u* merely teaches a method for incorporating interactive multimedia into everyday life, whereas Appellant's invention teaches a system to input merchant and item information into a computer terminal wherein the merchant and item information only includes merchants and items within the interior space of a multi-dealer retail establishment. It is submitted that the question under §103(a) is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform

their ordained and expected functions. The test is whether the invention as a whole, in light of all of the teachings of the reference in its entirety, would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

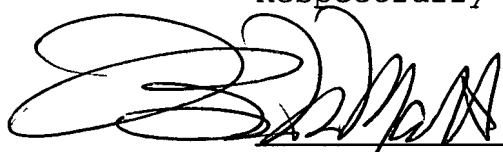
With the analysis of the deficiencies of *Chang et al.*, *Russell* and *892u*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to combine *Chang et al.*, *Russell* and *892u* to produce the claimed invention. *Chang et al.* teach a system and method for broadcast advertising in the field of advertising, *Russell* teaches a method for providing searchable electronic databases in the field of tradeshow and similar events and *892u* teaches a method for interactive multimedia in the field of multimedia. Therefore, *prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a).

Dependent Claims 6 and 16 are further believed allowable over the references of record for the same reasons set forth above with respect to independent Claims 1 and 8. Dependent Claims 6 and 16 set forth additional novel elements of Appellant's system. Therefore, Appellant submits that the rejection of dependent Claims 6 and 16 under 35 U.S.C. §103(a) is improper and should be reversed.

**CONCLUSION**

For the foregoing reasons, Appellant respectfully submits that the rejections of Claims 1-20 are erroneous as a matter of law and fact and respectfully request the Board to reverse the rejection.

Respectfully submitted,

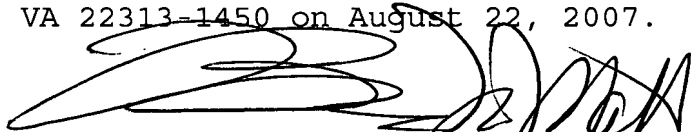


(Reg. No. 35,018)

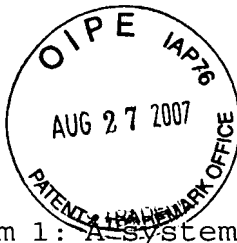
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**CERTIFICATE OF MAILING**

I hereby certify that this **APPEAL BRIEF with CLAIMS APPENDIX CONTAINING CLAIMS 1-20, EVIDENCE APPENDIX CONTAINING EXHIBITS A, B, C, D, E and RELATED PROCEEDINGS APPENDIX, TRANSMITTAL (in duplicate) and RETURN RECEIPT POSTCARD** are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, Alexandria, VA 22313-1450 on August 22, 2007.



Brian M. Mattson (Reg. No. 35,018)



#### VIII. CLAIMS APPENDIX

Claim 1: A system for determining an availability and a location of an item offered for sale by a merchant in a multi-dealer retail establishment wherein the multi-dealer retail establishment is a structure defined by walls wherein the walls define an interior space and wherein the availability and the location of the item are determined only within the multi-dealer retail establishment and further wherein the multi-dealer retail establishment has a plurality of merchants wherein each of the plurality of merchants is associated with only one of a plurality of locations within the interior space of the multi-dealer retail establishment and each of the plurality of merchants offers a plurality of items that are a distinct group of items from any other merchant of the plurality of merchants, the system comprising:

a computer network;

a database associated with the computer network;

means for inputting merchant information into the database wherein the merchant information is associated with the location of each one of the plurality of merchants wherein the merchants are located only within the interior space of the multi-dealer retail establishment;

means for inputting item information in the database wherein the item information is associated with a description of the item and a price of the item wherein each one of the plurality of items

is only locatable within the interior space of the multi-dealer retail establishment; and

a computer terminal located ~~in~~ within the interior space of the multi-dealer retail establishment wherein the computer terminal connects to the computer network and enables access to the item information and the merchant information and further wherein the computer terminal is remote with respect to the database and determines the location of the item wherein the item is only locatable within the interior space of the multi-dealer retail establishment by searching the item information in the database wherein the item information is associated with the location of the merchant ~~in~~ within the interior space of the multi-dealer retail establishment.

Claim 2: The system of Claim 1 wherein the computer network is the internet.

Claim 3: The system of Claim 1 further comprising:

a remote server wherein the database is contained on the remote server; and

a website providing access to the database.

Claim 4: The system of Claim 1 further comprising:

means for modifying the merchant information in the database.

Claim 5: The system of Claim 1 further comprising:

a password associated with the merchant for accessing the merchant information in the database.

Claim 6: The system of Claim 1 further comprising:

an electronic map associated with the multi-dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map.

Claim 7: The system of Claim 1 further comprising:

means for inputting an image associated with the item into the item information in the database; and

means for accessing the image associated with the item in the database from the computer terminal.

Claim 8: A method for locating and determining an availability and a location of an item offered for sale by a merchant in a multi-dealer retail establishment wherein the multi-dealer retail establishment is a building having walls defining an interior space wherein the location and the availability of the item are determined only from the items within the interior space of the multi-dealer retail establishment and wherein the merchant is part of a plurality of merchants within the multi-dealer retail establishment and further wherein the merchant offers a plurality of items that are a distinct group of items from any other merchant in the plurality of merchants and further wherein the merchant has a distinct location within the multi-dealer retail establishment, the method comprising the steps of:

providing a computer network;

providing a database connected to the computer network wherein the database stores merchant information associated with the merchant and further wherein the merchant information has the

location of the merchant within the multi-dealer retail establishment;

inputting a product list of the merchant into the merchant information in the database wherein the product list has item information associated with items offered for sale by the merchant wherein the items in the product list are determined only from the items available from the plurality of merchants within the interior space of the multi-dealer retail establishment;

providing a terminal in the multi-dealer retail establishment wherein the terminal access[es] the database for displaying the merchant information of the merchant in the database via the computer network wherein the terminal is only accessible at the multi-dealer retail establishment;

searching the product list in the merchant information based on the item information associated with the item; and

determining the location of the merchant in the multi-dealer retail establishment based on the merchant information associated with the item information in the product list wherein the terminal displays the location of the item in the multi-dealer retail establishment based on the location of the merchant wherein the merchant is only located within the interior space of the multi-dealer retail establishment.

Claim 9: The method of Claim 8 wherein the computer network is the internet.

Claim 10: The method of Claim 8 wherein the access to the database is wireless.

Claim 11: The method of Claim 8 further comprising the steps of:  
providing a remote server; and  
storing the database on the remote server.

Claim 12: The method of Claim 8 further comprising the step of:  
providing a second access to the database for modifying the merchant information in the database via the computer network.

Claim 13: The method of Claim 8 wherein the access is from a remote computer terminal with respect to the database.

Claim 14: The method of Claim 8 further comprising the step of:  
providing a password for accessing the merchant information in the database via the computer system.

Claim 15: The method of Claim 8 wherein the terminal accesses the database is via a computer website on the computer network wherein the computer website is remote with respect to the database.

Claim 16: The method of Claim 8 further comprising the step of:  
displaying the location of the merchant in the multi-dealer retail establishment on a map wherein the map is associated with the multi-dealer retail establishment.

Claim 17: The method of Claim 8 further comprising the step of:  
downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item.

Claim 18: The method of Claim 8 wherein the item information includes geographical information associated with the item for sale by the merchant.

Claim 19: The method of Claim 8 further comprising the steps of:

inputting user information into the database via the computer system wherein the user information is associated with the user; and

searching the product list in the merchant information based on the user information.

Claim 20: The method of Claim 8 further comprising the steps of:

inputting an inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale; and

modifying the inventory of the merchant via the computer system.



#### IX. EVIDENCE APPENDIX

EXHIBIT A: Final Rejection dated March 23, 2007

EXHIBIT B: *Chang et al.* (U.S. Patent Publication No.  
2003/0110078)

EXHIBIT C: *Russell* (U.S. Patent Publication No.  
2002/0083061)

EXHIBIT D: *Pugliese III et al.* (U.S. Patent Publication No.  
2001/0044751)

EXHIBIT E: Crossman, Craig, "Look, Listen and Interact with  
Multimedia." *Austin American Statesman* March 21, 1994, Page  
D6.



EXHIBIT A



# UNITED STATES PATENT AND TRADEMARK OFFICE



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,890	02/04/2004	Hobie Reber	HOB-P-04-001	3879
29013 7590 03/23/2007 PATENTS+TMS, P.C. 2849 W. ARMITAGE AVE. CHICAGO, IL 60647			EXAMINER ALLEN, WILLIAM J	
			ART UNIT	PAPER NUMBER
			3625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary



Application No.

10/771,890

Applicant(s)

REBER, HOBIE

Examiner

William J. Allen

Art Unit

3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Prosecution History Summary***

Claims 1-20 are pending and rejected as set forth below.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment necessitated the new grounds of rejection.

In response to applicant's arguments, the recitation "wherein the multi-dealer retails establishment is a structure...of the plurality of merchants" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Additionally, in response to applicant's argument regarding nonanalogous art and failure to show proper suggestion to combine references, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Furthermore, The examiner recognizes that obviousness can only be established by

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combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the cited references clearly constitute analogous art and provide adequate motivation to use in combination with the base references.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3, 8-11, 13, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 20030110078) in view of Russell (US 20020083061).**

**Regarding claim 1,** Chang teaches a system for locating and determining an availability and location of an item offered for sale in a shopping mall comprising:

*providing a computer network (see at least: Fig. 1);*

*a database associated with the network (see at least: 0008 lines 2-6, 0010 lines 4-7, 0023 lines 20-26, Fig. 1);*

*wherein the merchant information is associated with the location of each one of the plurality of merchants wherein the merchants are located only within the interior space of the multi dealer retail establishment (see at least: 0008 lines 2-6, 0010 lines 4-7, 0023 lines 20-26);*

*wherein the item information is associated with a description of the item and a price of the item wherein each one of the plurality of items is only locatable within the interior space of the multi dealer retail establishment (see at least: abstract lines 10-14, 0008 lines 2-6, 0010 lines 4-7, 0023 lines 20-26);*

*a computer terminal located in the multi-dealer retail establishment (see at least: abstract lines 10-14, Fig. 1(#14), 0025 lines 5-10) and*

*wherein the computer terminal connects the computer to the computer network*  
(see at least: Fig. 1(#14), 0020, 0025 lines 5-10) *and*  
*enables access to item information and merchant information* (see at least:  
abstract lines 10-14, Fig. 1(#14), 0023 lines 24-26, 0025 lines 5-10) *and further wherein*  
*the computer terminal is remote with respect to the database* (see at least: Fig.  
1(#14), 0020, 0025 lines 5-10) *and*  
*determines the location of the item in the multi-dealer retail establishment by*  
*searching the item information in the database wherein the item information is associated*  
*with the location of the merchant in the multi-dealer retail establishment* (see at least:  
abstract lines 10-14, 0010 lines 4-7, 0019 lines 13-16, 0023 lines 24-26, 0025 lines 5-10,  
claim 26)

Chang teaches all of the above including providing a database with such information as stock of the product, price, availability, and the physical location of the product in a particular store (i.e. *merchant*) in a shopping center, mall, or similar venue (see at least: abstract lines 10-14, 0023 lines 24-26, 0025 lines 1-3 and 6-10). Though not explicitly stated, the step of and means for inputting the merchant information and the product information is implicitly implied by Chang as some means and step of inputting such information must be performed in order for database 31 to contain such information. Chang merely lacks an explicit teaching of a *means for inputting merchant information* and a *means for inputting item information*.

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In the same field of endeavor, Russell teaches a method for providing a searchable electronic database for use in tradeshow (see at least: abstract lines 1-2). As noted by Russell, a typical problem with such events is the difficulty for an attendee to find a particular vendor when in a large venue (see at least 0003 lines 10-12). To remedy such deficiencies, Russell provides a dedicated computer system or kiosk in the venue operable with searchable reader software to provide a user with the ability to search and have presented information regarding vendors at the trade show such as vendor products, catalogue information, vendor location, etc. (see at least: 00108-10, 0007 lines 14-17, 0009 lines 5-8 and 22-26, 0011 all). More specifically, Russell teaches a vendor uploading via a secure web page information such as the vendor's name, web site, products offered, location, etc. (see at least: 0007 all, 0009 all). By explicitly teaching the inputting of the vendor's products (i.e. *a product list*), Russell teaches the implicitly implied *means for inputting merchant information and item information*.

It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang to have included *means for inputting merchant information and item information* as taught by Russell in order to provide a system that allows vendors to upload information into an electronic database compatible with searchable reader software thereby facilitating efficient search for and generation of desired information (such as product or vendor location) for a user in a multi dealer establishment (see at least: Russell, abstract, 0006, 0008).

**Regarding claim 2**, Chang in view Russell teaches *wherein the computer network is the internet* (see at least: Chang, 0023).

**Regarding claim 3**, Chang teaches all of the above and further teaches maintaining a database, remote from the kiosk, for use by a customer (see at least: Fig. 1). Chang, however, does not explicitly teach a *remote server* for maintaining the database and a *website for access to the database*. Russell teaches *remote server* for maintaining the database and a *website for access to the database* (see at least: abstract lines 5-9 (note: the database may be “accessed on a wireless network”), 0007 lines 7-11 and 14-17, 0009 lines 4-8, 0012 lines 1-10). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang to have included a *website for access to the database* as taught by Russell in order to allow vendors to upload information into an electronic database compatible with searchable reader software thereby facilitating efficient search for and generation of desired information for a user in a multi dealer establishment (see at least: Russell, abstract, 0006, 0008).

**Regarding claim 8**, Chang teaches a method for locating and determining an availability and location of an item offered for sale in a shopping mall comprising:

*providing a computer network (see at least: Fig. 1);*

*providing a database connected to the computer network wherein the database stores merchant information associated with the merchant and further wherein the merchant information has the location of the merchant within the multi-dealer retail establishment (see at least: 0008 lines 2-8, 0010 lines 4-7, 0023 lines 20-26, Fig. 1); Note: "location of a product in a particular store";*

*wherein the product list has item information associated with items offered for sale by the merchant wherein the items in the product list are determined only from the items available from the plurality of merchants within the interior space of the multi-dealer retail establishment (see at least: abstract lines 10-14, 0008 lines 2-6, 0010 lines 4-7, 0023 lines 20-26);*

*providing a terminal in the multi-dealer retail establishment wherein the terminal access the database for displaying the merchant information of the merchant in the database via a computer network wherein the terminal is only accessible at the multi-dealer retail establishment (see at least: abstract lines 10-14, Fig. 1(#14), 0025 lines 5-10);*

*searching the product list in the merchant information based on item information associated with the item (see at least: 0007 lines 5-8, 0011 lines 9-13, 0019 lines 12-16, 0023 lines 4-19, 0023-0025 all);*

*determining the location of the merchant in the multi-dealer retail establishment based on the merchant information wherein the terminal displays the location of the item in the multi-retail establishment based on the location of the merchant wherein the merchant is only located*

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*within the interior space of the multi-dealer retail-establishment* (see at least: abstract lines 12-14, 0010 lines 4-7, 0023 lines 24-26, 0025 lines 6-10, claim 26).

Chang teaches all of the above including providing a database with such information as stock of the product, price, and the physical location of the product in a particular store(i.e. *merchant*) in a shopping center, mall, or similar venue (see at least: abstract lines 10-14, 0023 lines 24-26, 0025 lines 1-3 and 6-10). Though not explicitly stated, there is the step of inputting the product information that is implicitly implied by Chang but which must be performed in order for database 31 to contain such information. Though such feature is seemingly inherent, Chang lacks an explicit teaching of *inputting a product list of the merchant into the merchant information in the database*.

In the same field of endeavor, Russell teaches a method for providing a searchable electronic database for use in tradeshow (see at least: abstract lines 1-2). As noted by Russell, a typical problem with such events is the difficulty for an attendee to find a particular vendor when in a large venue (see at least 0003 lines 10-12). To remedy such deficiencies, Russell provides a dedicated computer system or kiosk in the venue operable with searchable reader software to provide a user with the ability to search and have presented information regarding vendors at the trade show such as vendor products, catalogue information, vendor location, etc. (see at least: 00108-10, 0007 lines 14-17, 0009 lines 5-8 and 22-26, 0011 all). More specifically, Russell teaches a vendor uploading via a secure web page information such as the vendor's name, web site, products offered, etc. (see at least: 0007, 0009). By explicitly teaching the inputting of the

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vendor's products (i.e. *a product list*), Russell teaches the implicitly implied step of *inputting a product list of the merchant into the merchant information in the database*.

It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang to have included *inputting a product list of the merchant into the merchant information in the database* as taught by Russell in order to provide a system that allows vendors to upload information into an electronic database compatible with searchable reader software thereby facilitating efficient search for and generation of desired information (such as product or vendor location) for a user in a multi dealer establishment (see at least: Russell, abstract, 0006, 0008).

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**Regarding claims 9-11**, these claims closely parallel claims 2-3 and are thereby rejected for at least the same rationale.

**Regarding claim 13**, Chang in view of Russell teaches *wherein the first access is from a remote computer terminal with respect to the database* (see at least: Chang, Fig. 1; Russell, abstract lines 5-9, 0007 lines 7-11 and 14-17, 0009 lines 4-8, 0012 lines 1-10).

**Regarding claim 15**, Chang in view of Russell teaches *a computer website providing access to the database wherein the computer website is remote with respect to the database* (see at least: Russell, abstract, 0007, 0009, 0012). The Examiner notes that the user may access the database/web page through a wireless network using a computer system supplied at the tradeshow (see at least: abstract, 0012).

**Regarding claim 18**, Chang in view of Russell teaches *wherein the item information includes geographical information associated with the item for sale by the merchant* (see at least: Chang, abstract lines 10-14, 0023 lines 24-26, 0025 lines 1-3 and 6-10). The Examiner notes that the location of a product "in a particular store" constitutes geographic information.

3. **Claims 4-5, 7, 12, 14, 17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Russell as applied to claims 1 and 8 above, and further in view of Pugliese III et al. (US 20010044751).**

**Regarding claim 4,** Chang in view of Russell teach all of the above as noted and further teach a means for inputting merchant information (see at least: Chang, abstract, 0023, Fig. 1; Russell, abstract, 0002, 0007, 0009, 0014, claim 1 and 7). It). Chang in view of Russell, however, does not expressly teach *a means for modifying the merchant information*. In the same field of endeavor, Pugliese teaches a mall kiosk available to shoppers (see at least: abstract). Pugliese further teaches a merchant or “merchant administrator” with the ability to logon and update (i.e. modify) the merchant information in the database, and thereby teaches *means for modifying the merchant information* (see at least: abstract, 0275, 0277, 0334-0336, 0340-0341, Fig. 21). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have provided *a means for modifying the merchant information* as taught by Pugliese in order to provide a merchant management function that allows a merchant administrator to logon and easily update the merchant information for a specific merchant location (see at least: Pugliese, 0275, 0336).

**Regarding claim 5 and 14,** Chang in view of Russell teaches all of the above as noted and further teaches a secure web page available for vendors (i.e. merchants) to upload information to a database (see at least: Russell, abstract, 0007, 0009). Chang in view of Russell, however, does not expressly teach wherein *a password associated with the merchant for accessing the merchant information in the database*. Pugliese teaches a registered merchant or merchant administrator logging into the ShopLive system and updating merchant information (see at least: abstract, 0275, 0277, 0334-0336, 0340-0341, Fig. 21). Pugliese further teaches wherein the merchant may receive their password via email when using the lost password request function (see at least: 0332, Fig. 20 #100 and #106). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have included *a password associated with the merchant for accessing the merchant information in the database* as taught by Pugliese in order to provide a merchant management function that allows a merchant administrator to logon and easily update the merchant information for a specific merchant location (see at least: Pugliese, 0275, 0336).

**Regarding claim 7,** Chang in view of Russell teaches all of the above and further teaches uploading item information, without limitation, such as product type, model number, price, etc. (see at least: Chang, 0019). Chang in view of Russell, however, does not expressly teach *a means for inputting an image associated with the item in the item information in database and a means for accessing the image associated with the item in the database from the computer terminal*. Pugliese teaches *a means for inputting an image associated with the item in the item information in database and a means for accessing the image associated with the item in the database from*

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*the computer terminal* (see at least: 0271-0272, 0279, 0368, Fig. 15, claim 14). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have included *a means for inputting an image associated with the item in the item information in database and a means for accessing the image associated with the item in the database from the computer terminal* as taught by Pugliese in order to provide a system that supports content (such as images), thereby displaying to the shopper different views in order to allow them to better assess a product for purchase (see at least: Pugliese, 0010, 0125).

**Regarding claim 12,** Chang in view of Russell teach all of the above as noted and further teach a means for inputting merchant information (see at least: Chang, abstract, 0023, Fig. 1; Russell, abstract, 0002, 0007, 0009, 0014, claim 1 and 7). It). Chang in view of Russell, however, does not expressly teach *providing a second access to the database for modifying the merchant information via the computer network*. Pugliese teaches a merchant or “merchant administrator” with the ability to logon and update (i.e. modify) the merchant information in the database, and thereby teaches *providing a second access to the database for modifying the merchant information via the computer network* (see at least: abstract, 0275, 0277, 0334-0336, 0340-0341, Fig. 21). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have provided *providing a second access to the database for modifying the merchant information via the computer network* as taught by Pugliese in order to provide a merchant management function that allows a

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merchant administrator to logon and easily update the merchant information for a specific merchant location (see at least: Pugliese, 0275, 0336).

**Regarding claim 17**, Chang in view of Russell teaches all of the above and further teaches uploading item information, without limitation, such as product type, model number, price, etc. (see at least: Chang, 0019). Chang in view of Russell, however, does not expressly teach *downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item*. Pugliese teaches *downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item* (see at least: 0271-0272, 0279, 0368, Fig. 15). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have included *downloading an image into the item information of the item in the database via the computer network wherein the image is associated with the item* as taught by Pugliese in order to provide a system that supports content (such as images), thereby displaying to the shopper different views in order to allow them to better assess a product for purchase (see at least: Pugliese, 0010, 0125).

**Regarding claim 19**, Chang in view of Russell teaches all of the above and further teaches a user inputting information and performing a search based on the information (see at least: Chang, 0007, 0011, 0023; Russell, abstract, 0008). Chang in view of Russell, however, does not expressly show *inputting user information into the database via the computer system wherein the information is associated with the user and searching the product list in the*

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*merchant information based on the user information. Pugliese teaches inputting user information into the database via the computer system wherein the information is associated with the user and searching the product list in the merchant information based on the user information (see at least: 0013, 0117, 0143, 0177-0179, 0206). It would have been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have included inputting user information into the database via the computer system wherein the information is associated with the user and searching the product list in the merchant information based on the user information as taught by Pugliese in order to provide a system that allows access to shopper profile information interactively during a shopping session to determine shopper preferences and allow merchants to serve the shopper better (see at least: Pugliese, 0117).*

**Regarding claim 20,** Chang in view of Russell teaches all of the above and further teaches accessing product availability information and product stock information (see at least: Chang, abstract lines 10-14, 0023 lines 24-26, 0025 lines 1-3 and 6-10). Chang in view of Russell, however, does not expressly show *inputting inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system. Pugliese teaches inputting inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system (see at least: 0099, 0126, 0140). It would have*

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been obvious to one of ordinary skill in the art at the time of invention to have modified the invention of Chang in view of Russell to have included *inputting inventory of the merchant into the database via the computer system wherein the inventory is associated with the product list of the merchant and further wherein the inventory includes the item for sale and modifying the inventory of the merchant via the computer system* as taught by Pugliese in order to provide a system that supports shoppers by checking availability of items for sale at a store location and helps the shopper complete the purchase as in a normal transaction (see at least: Pugliese, abstract).

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4. **Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Russell as applied to claims 1 and 8, and in further view of 892u.**

Regarding claim 6 and 16, Chang in view of Russell teaches locating an item in a multi retailer establishment (see at least: Chang, abstract; Russell, abstract). Russell further teaches how providing a map can be advantageous for shoppers to locate vendors and items (see at least: 0004). Chang in view of Russell, however, does not expressly teach *an electronic map associated with the multi dealer retail establishment wherein the location of the merchant associated with the item information is displayed on the electronic map*. 892u teaches a mall kiosk equipped with a touch screen monitor. 892u further teaches a window on the monitor of the mall kiosk that provides a sales assistant for providing the location of a desired product and an animated (i.e. electronic map) on the touch screen showing current location and how to get to the store containing desired product (see at least: Paragraph 1). It would have been obvious to one of ordinary skill in the art to have modified the invention of Chang in view of Russell to have included *displaying an electronic map wherein the location of the merchant associated with the item information is displayed on the electronic map* as taught by 892u in order to provide an easy, interactive means for displaying an animated map directing a shopper to a particular store, thereby assisting the shopper in locating the product quickly (see at least: 892u, Page 1).

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Allen whose telephone number is (571) 272-1443. The examiner can normally be reached on 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff A. Smith can be reached on (571) 272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

William J. Allen  
Patent Examiner  
March 19, 2007

  
MATTHEW S. GART  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 3600

# **Notice of References Cited**

Application/Control No.

10/771,890

Examiner

William J. Allen

Applicant(s)/Patent Under  
Reexamination  
REBER, HOBIE

Art Unit

3625

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0110078 A1	06-2003	Chang et al.	705/14
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

## **FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

## **NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EXHIBIT B



US 20030110078A1

(19) **United States**

(12) **Patent Application Publication**

**Chang et al.**

(10) **Pub. No.: US 2003/0110078 A1**

(43) **Pub. Date: Jun. 12, 2003**

(54) **SYSTEM AND METHOD FOR BROADCAST ADVERTISING**

**Publication Classification**

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(51) **Int. Cl.<sup>7</sup>** ..... **G06F 17/60**; **H04N 7/08**;  
**H04N 5/445**  
(52) **U.S. Cl.** ..... **705/14**; **705/27**; **348/473**;  
**725/60**

(57) **ABSTRACT**

A system and method for broadcast advertising includes a broadcast receiver that receives a broadcast signal. In addition to the usual video and/or audio data, the broadcast signal includes embedded product or service data. Moreover, the broadcast receiver includes a memory slot that is sized and shaped to receive a portable memory media. In response to a signal received at the broadcast receiver, e.g., from a remote control unit, the embedded product data is extracted from the broadcast signal and downloaded to the portable memory media forming a virtual shopping list. To facilitate shopping, the portable memory media can then be installed in a shopping computer, e.g., in an information kiosk at a shopping mall to determine where a particular product can be found, how much it costs, etc.

**Correspondence Address:**

**Rogitz & Associates**

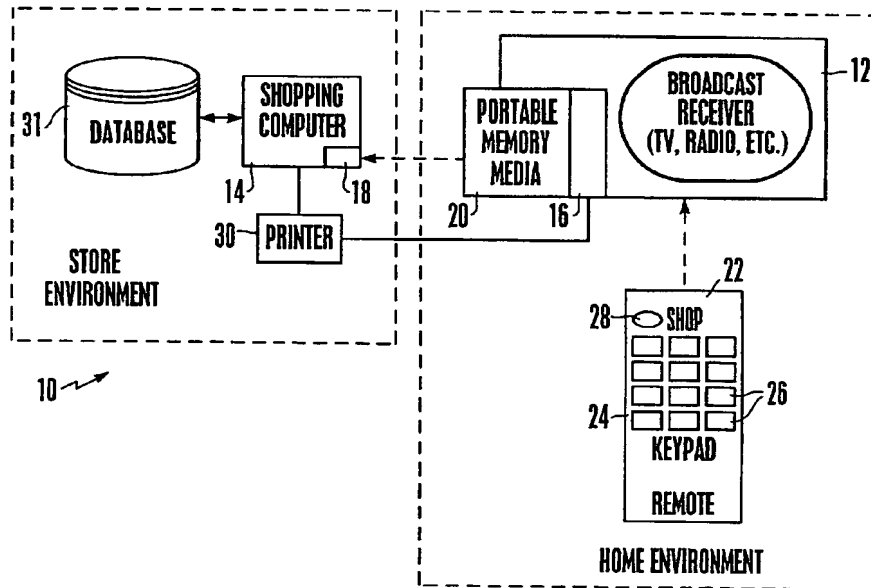
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(21) **Appl. No.: 10/003,731**

(22) **Filed: Oct. 29, 2001**



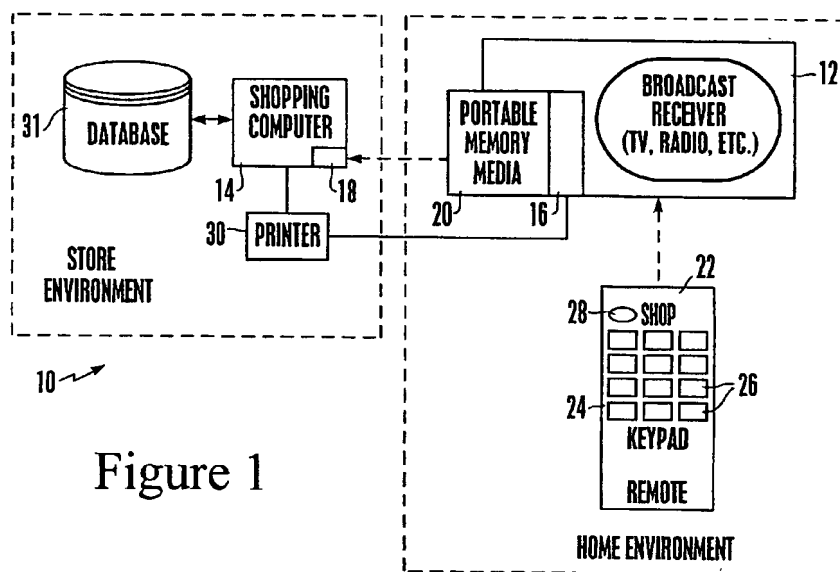
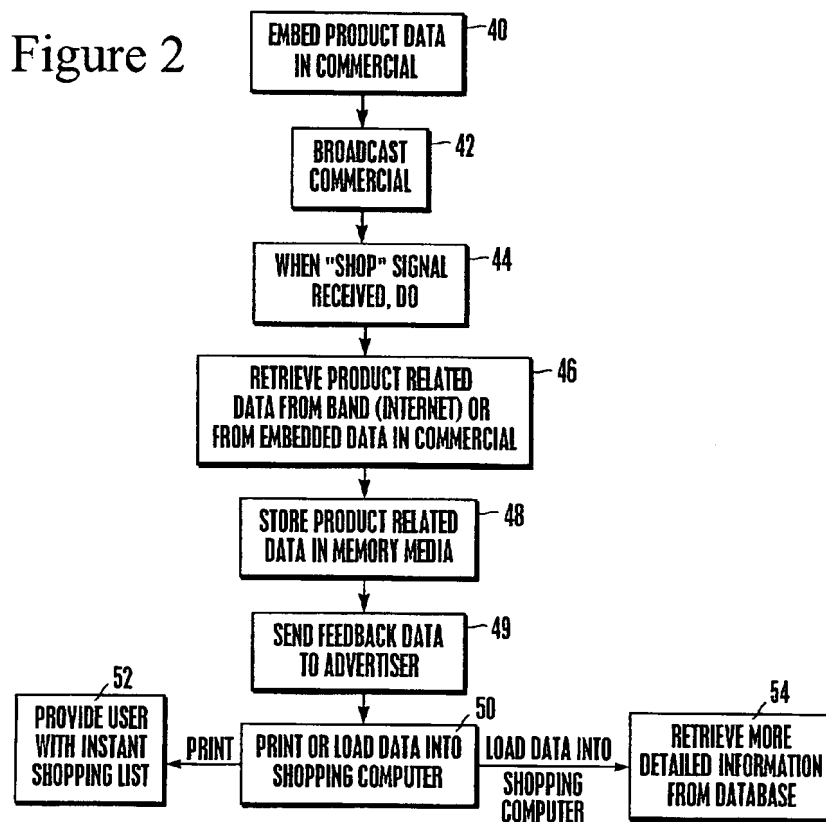


Figure 1



## SYSTEM AND METHOD FOR BROADCAST ADVERTISING

### BACKGROUND OF THE INVENTION

#### [0001] 1. Field of the Invention

[0002] The present invention relates generally to broadcast systems such as television broadcast systems and radio broadcast systems.

#### [0003] 2. Description of the Related Art

[0004] Billions of dollars are generated annually by the sale of television and radio advertisements that are broadcasted during commercial breaks. Typically, commercials are very fleeting and only provide the viewer with limited information regarding the products that they are peddling. As a consequence, a viewer's interest may be piqued, but he or she may not know how or where to obtain the product of interest. Also, viewers often tune out commercials or perform other tasks during commercials, and if something in the commercial catches their eye or ear, it may be too late to learn anything about the product, i.e., the commercial may be over.

[0005] In either situation, if a viewer wants to know more information about a product or service, i.e., the model number of the product, the brand name of the product, the manufacturer of the product, the price of the product, the provider of the service, the cost of the service, etc., he or she must conduct time consuming outside research regarding the product or service. Since most commercials do not provide information having this level of detail, the effectiveness of conventional commercials may be limited.

[0006] Accordingly, it is an object of the present invention to provide a means by which detailed product information may be received at a broadcast receiver without altering the content of the commercials broadcasted thereon.

### SUMMARY OF THE INVENTION

[0007] A method for facilitating shopping by including embedded product data into a broadcast signal receivable by a broadcast receiver, e.g., a TV or radio receiver. In response to a user command, the product data is transferred from the broadcast receiver to a portable memory media. Then, the portable memory media can transfer data to a shopping computer to identify a product associated with the product data to which the shopper indicated interest.

[0008] In a preferred embodiment, the user command is generated using a remote control device. Moreover, the shopping computer is a kiosk. Preferably, the product data includes, but is not limited to: product type, model number, universal product code (UPC), price, brand name, country of manufacture, and/or product availability. Or, the product data can be as simple as an embedded icon, watermark, logo, or symbol that can be used as a look-up pointer.

[0009] Preferably, the method further includes embedding service data into the broadcast signal receivable by the broadcast receiver. In response to a user command, the data is transferred from the broadcast receiver to the portable memory media. Then, the portable memory media is inserted into the shopping computer to identify a service associated with the service data. Alternatively, a wireless means can be used to transfer the data to the shopping

computer. In a preferred embodiment, the service data includes: service provider, cost of service, and/or availability of the service.

[0010] In a preferred embodiment, a hard copy of the product data or service data can be printed by a printer connected to the broadcast receiver or shopping computer. Moreover, the shopping computer can use the shopping data to obtain more information to facilitate shopping, e.g., physical location of the product in a store, product price, product coupons, etc. Preferably, the portable memory media is a flash memory device. Moreover, in a preferred embodiment, the remote control device includes a "shop" button and the user command is generated when the "shop" button is depressed.

[0011] In another aspect of the present invention, a system for promoting purchase of a product includes a broadcast receiver that receives a signal that has product data therein. Further, the system includes a portable memory media that is removably engageable with the broadcast receiver. Also, the portable memory media can communicate wirelessly with the broadcast receiver. A user input device triggers the storage of the product data on the portable memory media. In this aspect, the portable memory media can then be engaged with a shopping computer that is distanced from the broadcast receiver so that the shopping computer receives the product data therefrom to promote a transaction involving the product.

[0012] In yet another aspect of the present invention, a broadcast receiver, e.g., a television or radio, includes means for receiving a broadcast signal having product data embedded therein. Also, the broadcast receiver includes means for receiving at least one user command and means for transferring the data from the broadcast receiver to a portable memory means, in response to the user command.

[0013] In still yet another aspect of the present invention, the broadcast receiver can be a mobile or portable broadcast receiver, e.g., a car radio, whereby pressing a "shop" button on the broadcast receiver during a commercial saves product or service data on a portable memory media.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The details of the present invention, both as to its structure and operation, can best be understood in reference to the accompanying drawings, in which like reference numerals refer to like parts, and in which:

[0015] FIG. 1 is a block diagram of the system of the present invention; and

[0016] FIG. 2 is flow chart showing the method of the present invention.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] Referring initially to FIG. 1, a system is shown, generally designated 10. As shown, the system 10 includes a broadcast receiver 12 and a shopping computer or kiosk 14. It is to be understood that the broadcast receiver 12 can be a television, a radio (stationary or mobile), or any other device capable of receiving broadcast content. The broadcast receiver 12 and the computer 14 each include respective slots 16, 18 that are sized and shaped to receive a corre-

spondingly sized and shaped portable memory media 20. It is to be appreciated that the portable memory media 18 can be installed in either the broadcast receiver 12 or the computer 14.

[0018] In a preferred embodiment, the portable memory media 18 is a flash memory device, e.g., a Memory Stick® manufactured and sold by Sony®. However, it is to be appreciated that the portable memory media 18 can be a portable random access memory (RAM) device, a portable electrically erasable programmable read-only memory (EEPROM) device, or any other similar portable media useful for transferring data or information from one device to another.

[0019] In accordance with the present invention, the broadcast receiver 12 receives broadcast content, at least a portion of which includes advertisements broadcasted during commercial breaks. Preferably, the commercial advertisements include detailed information regarding products and services that are embedded in the broadcast signal received at the broadcast receiver 12. In one exemplary, non-limiting embodiment, the detailed information is embedded in the broadcast signal much like embedded closed captioning information that is embedded in the vertical blanking interval (VBI) or other portion of the broadcast signal. The detailed product information can include, without limitation, product type, model number, universal product code (UPC), price, brand name, country of manufacture, product availability (i.e., when and where), service provider, cost of service, availability of the service, etc. Alternatively, the data may be a simple watermark, icon, logo, or symbol that is used as a pointer to retrieve more detailed information.

[0020] FIG. 1 further shows that the system 10 includes a remote control unit 22 that can be used to control the operation of the broadcast receiver 12. As shown in FIG. 1, the remote 22 includes a keypad 24 having plural hardware or software-implemented control buttons 26—one of which is a “shop” button 28. As described in detail below, when the “shop” button 28 is depressed, the detailed product and service information embedded in the commercial advertisements is downloaded to the portable memory media 20 that is installed in the broadcast receiver 12. As shown in FIG. 1, the broadcast receiver 12 and/or the computer 14 can be connected to a printer 30. Moreover, the computer 14 can be connected to a database 31.

[0021] Now referring to FIG. 2, the method steps of the present invention can be seen. Commencing at block 40, the product data or service data described above is embedded in the broadcast signal that is received at the broadcast receiver 12. Preferably, the detailed product information or service information is embedded in commercials corresponding to particular products and/or services. Moving to block 42, the commercials with the embedded content are broadcast so that they can be received at the broadcast receiver 12.

[0022] At block 44, a do loop is entered wherein when the “shop” signal is received at the broadcast receiver 12 the following steps are performed. It is to be understood that the “shop” signal is generated when the “shop” button 28 on the remote control unit 22 is depressed or otherwise toggled.

[0023] Continuing the description of the logic, when the “shop” signal is received, the logic moves to block 46 where

the embedded product related information is retrieved from the commercial content. In the case of Internet TV, i.e., TV that receives Internet content as well as regular TV broadcast content, the information can be retrieved from a web server or an Internet database with which the broadcast receiver 12 is in communication via LAN, WAN, T1, or other Internet connection. Proceeding to block 48, the detailed product data is stored at the broadcast receiver 12, e.g., in the portable memory media 20. Also, at block 49, feedback can be sent to the advertisers to assist them in determining the effectiveness of, or interest in, particular commercials. Continuing to block 50, the detailed product data can be printed or uploaded to the shopping computer 14 by inserting the portable memory media 20 into the shopping computer 14. It is to be understood that the product data can be uploaded to the shopping computer 14 via a wireless connection. If the detailed product information is printed, the user is provided with an instant shopping list at block 52. On the other hand, if the product information is loaded into the shopping computer, even more detailed product information can be retrieved from the database 31 connected to the shopping computer 14. This information, e.g., can include physical location of a product in a particular store, current price, similar products, coupons, stock of product, etc. This additional information can be combined with information previously stored in the portable memory media 20 and also printed.

[0024] With this in mind, it can be appreciated that a user is able to receive detailed information regarding products and/or services that are the subject of commercials. The user can then decide whether to purchase the products based on this information. If so, the information can facilitate the purchase of the products of interest.

[0025] It is to be understood that the shopping computer 14 can be located at the user's home or at a kiosk within a shopping center, mall or other shopping venue. Thus, a user can download shopping information to the portable memory media 20, as described above, carry the portable memory media 20 to, e.g., an information kiosk at a shopping center, insert the portable memory media 20 into a computer at the information kiosk and automatically find out in which stores the products corresponding to the information on the portable memory media 20 can be found.

[0026] While the particular SYSTEM AND METHOD FOR BROADCAST ADVERTISING as herein shown and described in detail is fully capable of attaining the above-described aspects of the invention, it is to be understood that it is the presently preferred embodiment of the present invention and thus, is representative of the subject matter which is broadly contemplated by the present invention, that the scope of the present invention fully encompasses other embodiments which may become obvious to those skilled in the art, and that the scope of the present invention is accordingly to be limited by nothing other than the appended claims, in which reference to an element in the singular is not intended to mean “one and only one” unless explicitly so stated, but rather “one or more.” All structural and functional equivalents to the elements of the above-described preferred embodiment that are known or later come to be known to those of ordinary skill in the art are expressly incorporated herein by reference and are intended to be encompassed by the present claims. Moreover, it is not necessary for a device or method to address each and every problem sought to be

solved by the present invention, for it is to be encompassed by the present claims. Furthermore, no element, component, or method step in the present disclosure is intended to be dedicated to the public regardless of whether the element, component, or method step is explicitly recited in the claims. No claim element herein is to be construed under the provisions of 35 U.S.C. section 112, sixth paragraph, unless the element is expressly recited using the phrase "means for."

We claim:

1. A method for facilitating shopping, comprising:
  - embedding at least one product data into a broadcast signal receivable by a broadcast receiver;
  - in response to a user command, transferring the data from the broadcast receiver receiving the broadcast signal to a portable memory media; and
  - inserting the portable memory media into a shopping computer to identify a product associated with the product data.
2. The method of claim 1, wherein the user command is generated using a remote control device.
3. The method of claim 2, wherein the shopping computer is a kiosk.
4. The method of claim 1, wherein the product data includes at least one of the following: product type, model number, universal product code (UPC), price, brand name, country of manufacture, or product availability.
5. The method of claim 1, further comprising the acts of:
  - embedding at least one service data into a broadcast signal receivable by the broadcast receiver;
  - in response to a user command, transferring the data from the broadcast receiver receiving the broadcast signal to the portable memory media; and
  - inserting the portable memory media into the shopping computer to identify a service associated with the service data.
6. The method of claim 5, wherein the service data includes at least one of the following: service provider, cost of service, or availability of the service.
7. The method of claim 5, further comprising the act of:
  - printing a hard copy of the product data or service data.
8. The method of claim 1, wherein the portable memory media is a flash memory device.
9. The method of claim 2, wherein the remote control device includes a "shop" button, the user command being generated when the "shop" button is depressed.
10. The method of claim 1, wherein the broadcast receiver is one of the following: a television or a radio.
11. The method of claim 9, further comprising the act of:
  - sending feedback to an advertiser representing interest in a particular commercial when the "shop" button is depressed.
12. The method of claim 1, wherein the product data is represented by a pointer that indicates where the detailed product information can be found within a database connected to a shopping computer.
13. The method of claim 12, wherein the pointer is one of the following:
  - a symbol, an icon, a watermark, or a logo.
14. A system for promoting purchase of a product, comprising:
  - at least one broadcast receiver receiving a signal having at least one product data therein;
  - at least one portable memory media removably engageable with the broadcast receiver;
  - at least one user input device to cause the product data to be stored on the portable memory media; and
  - at least one shopping computer distanced from the broadcast receiver and engageable with the portable memory media to receive the product data therefrom to promote a transaction involving the product.
15. The system of claim 14, wherein the user input device is a remote control unit.
16. The system of claim 14, wherein the shopping computer is a kiosk.
17. The system of claim 14, wherein the product data includes at least one of the following: product type, model number, universal product code (UPC), price, brand name, country of manufacture, or product availability.
18. The system of claim 14, wherein the signal received at the broadcast receiver further includes at least one service data.
19. The system of claim 18, wherein the service data includes at least one of the following: service provider, cost of service, or availability of the service.
20. The system of claim 14, further comprising:
  - an output device connected to at least one of: the broadcast receiver or the shopping computer.
21. The system of claim 20, wherein the output device is a printer.
22. The system of claim 14, wherein the portable memory media is a flash memory device.
23. The system of claim 15, wherein the remote control device includes a "shop" button, the "shop" button being toggled to cause the product data to be stored on the portable memory media.
24. The system of claim 14, wherein the broadcast receiver is one of the following: a television or a radio.
25. The system of claim 17, wherein the shopping computer is connected to a database, the shopping computer utilizing data stored on the portable memory media to access the database to retrieve additional product data.
26. The system of claim 25, wherein the additional product data includes at least one of the following: physical location of product in a store, coupons, or similar products.
27. A broadcast receiver, comprising:
  - means for receiving a broadcast signal having at least one product data embedded therein;
  - means for receiving at least one user command; and
  - means for transferring the data from the broadcast receiver to a portable memory means, in response to the user command.
28. The broadcast receiver of claim 27, wherein the user command is generated using a user input means.
29. The broadcast receiver of claim 27, wherein the data is transferred from the portable memory means to a shopping means.
30. The broadcast receiver of claim 27, wherein a hard copy of the data is produced using a printing means.

\* \* \* \* \*

EXHIBIT C



US 20020083061A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0083061 A1****Russell**(43) **Pub. Date:****Jun. 27, 2002**(54) **METHOD OF PROVIDING TRADESHOW  
INFORMATION****Publication Classification**(76) **Inventor:** Larry Russell, Tiburon, CA (US)(51) **Int. Cl.<sup>7</sup>** ..... **G06F 17/30**(52) **U.S. Cl.** ..... **707/10****Correspondence Address:****Pillsbury Winthrop LLP**  
**Intellectual Property Group****50 Fremont Street****P.O. Box 7880****San Francisco, CA 94120-7880 (US)**(57) **ABSTRACT**(21) **Appl. No.:** 10/028,941(22) **Filed:** Dec. 21, 2001**Related U.S. Application Data**(63) Non-provisional of provisional application No.  
60/257,901, filed on Dec. 21, 2000. Non-provisional  
of provisional application No. 60/257,505, filed on  
Dec. 21, 2000.

A method for providing searchable electronic databases for use in tradeshows and similar events. In the preferred embodiment, tradeshow information is collected via the Internet and electronically compiled into a database in a format compatible with a searchable reader software. The database is electronically stored on a CD, a computer hard drive, a personal digital assistant (PDA) compatible database, uploaded on a web page, or accessed on a wireless network located at the tradeshow. A user may obtain a CD, a PDA download, or an access password for the web page, and may access the database using a personal computer or a computer system provided at the tradeshow.

## METHOD OF PROVIDING TRADESHOW INFORMATION

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No. 60/257,901 filed Dec. 21, 2000, the contents of which are incorporated herein by reference.

### FIELD OF THE INVENTION

[0002] This invention relates generally to electronic information storage. Specifically, this invention relates to methods for creating searchable electronic databases for use in tradeshows and conventions.

### BACKGROUND OF THE INVENTION

[0003] Every year, thousands of tradeshows, expositions, conventions and conferences are held for various purposes, ranging from marketing and selling new products and services to providing educational seminars and workshops. Generally, between 20 to more than 5000 vendors or exhibitors can be found at a tradeshow or similar event, each exhibitor occupying at least one booth on the show floor. Convention centers such as the Los Angeles Convention Center provide more than 850,000 square feet of exhibition space. As such, it can be very difficult for an attendee of a large tradeshow to find a particular vendor or exhibitor without assistance.

[0004] Several solutions have been implemented to solve this problem. For example, site maps and alphabetical listings of the vendors or exhibits are often provided at large tradeshows or conventions to help an attendee locate desired vendors or exhibits. In addition, vendors and exhibits are sometimes arranged by category on the listing, and brief descriptions of the exhibits or vendors' businesses are sometimes provided as well.

[0005] Unfortunately, these "solutions" do not provide sufficient guidance for tradeshow attendees. For example, an attendee with a site map and a 30 page alphabetical listing of the vendors at a large tradeshow would have a difficult time, at best, trying to find a vendor selling a particular product, unless the attendee already knew the name of the vendor. In addition, site maps and listings are often out of date and incomplete, making things even more difficult for the attendees. Similarly, categorized listings and summaries of the exhibits also do not help much if the listings and summaries take more than a few pages. It is also customary in the United States for locations in the tradeshow to be determined by last year's attendance and the size of the exhibit, which results in the listings and summaries being arranged in a helter-skelter manner where, for example, pumps are listed next to textbooks depending upon the priority each of the vendors gained from their attendance and the size of the space that they rented previously. It would thus take considerable time for a tradeshow attendee to read through the categories or summaries to find her desired exhibitors and their locations. Furthermore, non-attendees interested in receiving vendor information from the tradeshow are not able to do so under current distribution practices.

[0006] Therefore, there exists a need for an efficient way to generate desired information for an attendee of a trade-

show or similar event so that the attendee may optimize his or her time at the event. Moreover, it would be advantageous to have a method to distribute tradeshow information to interested parties who are unable to attend the tradeshow.

### SUMMARY OF THE INVENTION

[0007] The present invention discloses methods for providing searchable electronic databases for use in conferences (e.g., tradeshows, conventions, expositions, and similar events). In the preferred embodiment, tradeshow information is collected prior to the meeting and electronically compiled into a database in a format compatible with a searchable reader software. The vendors would be allowed and encouraged to access a secure web page or wireless network, which would allow them to upload specified amounts of information including a web page address and information about their products for a specified cost. The database is electronically stored on a CD, a computer hard drive, a personal digital assistant (PDA) compatible database, or uploaded on a web page. A user may obtain a CD, a PDA download, or an access password for the web page, and may access the database using a personal computer or a computer system provided at the tradeshow.

[0008] The present invention allows a tradeshow attendee to efficiently search for desired information at the tradeshow. In addition, interested parties may readily obtain desired information without attending the tradeshow.

### DETAILED DESCRIPTION OF THE INVENTION

[0009] The present invention relates to methods for collecting and storing information relating to a tradeshow or similar event in a searchable electronic database. In the preferred embodiment of the present invention, desired information regarding a tradeshow, such as a vendor's products, web site address, catalogue information, or its location at the show, is collected prior to the tradeshow, preferably by uploading to a proprietary web page. Information can also be collected during the show. The exhibitors or vendors may submit their information for a flat fee or on a unit cost per kilobyte basis. This cost may also be bundled with any other tradeshow-related fees. The collected information is then electronically compiled into a database, preferably on CD-ROM or uploaded on a web page, in a format compatible with at least one searchable reader software. The reader software can be any software program that is capable of performing a word search on the database, for example a spreadsheet program such as Microsoft Excel, a document publishing program such as Adobe Acrobat Reader, a word-processing program such as Microsoft Word, or a PDA program. Preferably, the reader software has the capability to perform Boolean searches. That is, the database entries are preferably created with predetermined search fields or key words such as "vendor name" or "vendor products" so that a user may use the reader software to search the entries by fields in addition to text search.

[0010] In accordance with the preferred embodiment of the present invention, the database is compiled on CD-ROM, and copies of the completed database CDs are distributed to tradeshow attendees at the beginning of and throughout the tradeshow. Copies of the database may also be distributed at the end of or after the tradeshow. The

attendees may then use their own portable computers to access the data. In addition, dedicated computer systems may be provided at the tradeshow for users to perform a search on the database and obtain a copy of the search result. Preferably, the database is compiled as a text file or in a format that is compatible with a common word processing computer program, such as Microsoft Word or Excel. Alternatively, the database CD may contain an executable reader program integrated or linked to the database, which program may be run directly from the CD or downloaded onto a hard drive, and the execution of the reader program automatically opens the default database file or vice versa. Such an integrated or linked reader program may be a simple macro program designed to provide a well-defined searchable engine within a common end user software such as Microsoft Word or Excel. Of course, the database CD and the searchable reader program may be distributed separately.

[0011] In another embodiment, at least one computer system comprising a computer, a monitor and a printer is provided in at least one kiosk or booth at the tradeshow. The completed database and searchable reader software are preferably electronically uploaded on the hard drive of the computer. A user may perform a search for any desired information on the computer provided, and may obtain a printout of the information using the printer provided. Preferably, the computer system is password secured, and a user may purchase a password at the tradeshow.

[0012] In accordance with yet another embodiment, the compiled database is uploaded on a web page, which is preferably password protected. A user may purchase or obtain a password online or at the corresponding tradeshow or similar event. In one implementation, a dedicated computer system similar to the ones described above or a wireless network is provided at the tradeshow. The user may use the computer system or wireless network to access the web page, perform a search for any desired information online, and obtain a hard copy of the search results at the tradeshow. In addition, users interested in the information, but are unable to attend the tradeshow, may access the web page from a personal computer at home.

[0013] In yet another preferred embodiment, the database is compiled in a format compatible with a PDA. The database may be compiled on a PDA compatible platform and stored on a PDA downloadable station. The database may be downloaded at the tradeshow to a user's individual PDA or accessed via a wireless network at the convention center. Alternatively, the database may be compiled on a PDA card, which can be directly plugged into a PDA for access. As a third alternative, the database may be compiled and stored on a web page, and the database may then be downloaded to a PDA from the web page. Again, access to the database may be purchased for a flat fee or on a per kilobyte basis.

[0014] The various information providers (i.e., tradeshow vendors) can provide hyperlinks to their web pages or substantial information about their product or business in the database.

[0015] Although the invention herein has been described with reference to particular embodiments, it is to be understood that the embodiments are merely illustrative of the principles and application of the present invention. It is therefore to be understood that various modifications may be

made to the above mentioned embodiments and that other arrangements may be devised without departing from the spirit and scope of the present invention.

I claim:

1. A method of providing information of a conference, comprising the steps of:

collecting the information;

compiling the collected information into an electronic database; and

distributing the database in an electronic medium.

2. The method of claim 1, wherein the conference is a tradeshow, the database is a searchable database viewable via a computer program, and the electronic medium is a Compact Disk.

3. The method of claim 2, wherein the step of collecting the information comprises uploading the information onto a web site

4. The method of claim 2, wherein the step of collecting the information comprises uploading the information onto a wireless network.

5. The method of claim 3, wherein the computer program is integrated with the database.

6. The method of claim 3, further comprising the steps of:

providing a computer at the tradeshow; and

viewing the information in the database on the computer.

7. The method of claim 6, wherein the information comprises a vendor's product information, web site address, catalogue information, and the vendor's location at the tradeshow.

8. The method of claim 7, wherein the information is collected prior to the tradeshow and the database is distributed in a time frame selected from the group consisting of prior to the tradeshow, during the tradeshow, and after the tradeshow.

9. The method of claim 1, wherein the conference is a tradeshow, the database is a searchable database viewable via a computer program, and the electronic medium is a PDA card.

10. The method of claim 9, further comprising viewing the information on a PDA.

11. The method of claim 10, wherein the information is collected prior to the tradeshow and the database is distributed in a time frame selected from the group consisting of prior to the tradeshow, during the tradeshow, and after the tradeshow.

12. A method of providing information of a conference, comprising the steps of:

collecting the information;

compiling the collected information into an electronic database;

storing the database in a computer at the conference; and

viewing the information on the computer.

13. The method of claim 12, wherein the step of collecting the information comprises uploading the information onto a web site.

14. The method of claim 13, wherein the conference is a tradeshow, the database is a searchable database viewable via a computer program, and the computer is located in a dedicated kiosk or booth at the tradeshow.

15. The method of claim 14, wherein the information is collected prior to the tradeshow and the database is distributed in a time frame selected from the group consisting of prior to the tradeshow, during the tradeshow, and after the tradeshow.

16. The method of claim 12, wherein the computer is a PDA.

17. The method of claim 12, wherein the computer is a wireless network.

18. A method of providing information of a conference, comprising the steps of:

collecting the information;

electronically compiling the collected information into a downloadable database; and

downloading the database onto an electronic medium for viewing.

19. The method of claim 18, wherein the step of collecting the information comprises uploading the information onto a web site.

20. The method of claim 19, wherein the electronic medium is selected from the Group consisting of personal computers, notebook computers, personal digital assistants, palmtop computers, and wireless networks.

21. The method of claim 20, wherein the conference is a tradeshow, the database is a searchable database viewable via a computer program and accessible via the Internet.

22. The method of claim 21, wherein the electronic medium is located at the tradeshow.

\* \* \* \* \*

EXHIBIT D



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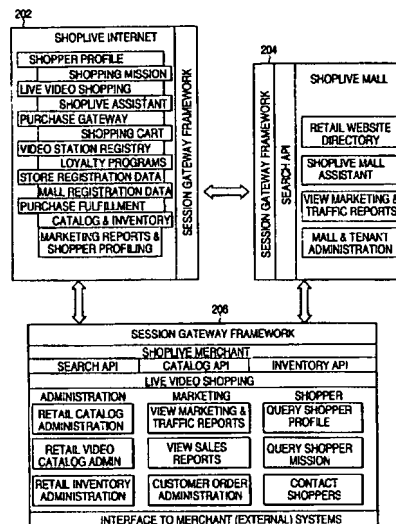
(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2001/0044751 A1****Pugliese, III et al.**(43) **Pub. Date: Nov. 22, 2001**(54) **SYSTEM AND METHOD FOR DISPLAYING AND SELLING GOODS AND SERVICES**(76) **Inventors: Anthony V. Pugliese III, Boca Raton, FL (US); Anthony V. Pugliese IV, Delray Beach, FL (US); Richard Anthony Angulo, Pembroke Pine, FL (US); Patrick John Myers, Miami, FL (US)**

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**SUITE 1800**  
**1300 NORTH SEVENTEENTH STREET**  
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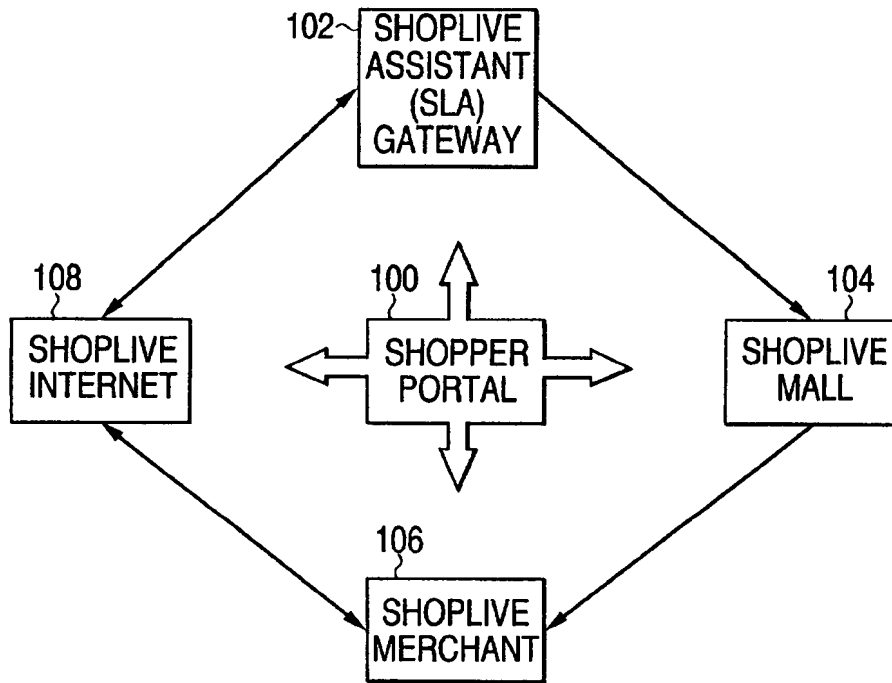
(21) **Appl. No.: 09/823,999**(22) **Filed: Apr. 3, 2001****Related U.S. Application Data**(63) **Non-provisional of provisional application No. 60/194,016, filed on Apr. 3, 2000. Non-provisional of provisional application No. 60/253,112, filed on Nov. 27, 2000.****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... G06F 17/60**(52) **U.S. Cl. .... 705/26; 705/27**(57) **ABSTRACT**

The ShopLive system supports existing merchants and malls to better serve customers by providing easy access to merchandise and sales assistance. The shopper accesses the

ShopLive system through various portals. They can be a PC, Web TV, mall kiosk, store kiosk, mobile terminal, screen telephone or any other communication device capable of connecting to a communications network. When the shopper starts the shopping mission they can logon in or if already enrolled, they can use a password for a quick entry. They may chose to shop anonymously. A shopper can set up a shopping mission by defining class of goods, price, color and the like and set out to search for that either in their physical location or remotely. Once the items are located video cameras scan the merchandise to the shopper through the terminal. The cameras may be remotely operable to swing through different views to better display the goods. Or they can view items according to pre-determined scan patterns. Sound and other sensory stimulus such as tactile sensors may be used to enhance the shopping experience. The shopper may also ask for help from an assistant (SLA) that acts just like a sales person in a retail setting. This person can help select goods and can discuss the items selected. The SLA can also check product availability and help complete the purchase as in a normal sales transaction. Or, the shopper can use the ShopLive system to check out themselves. As the shopper moves through the shopping mission, they can add items to their electronic shopping cart and have a one-stop check out or they can check out with each merchant. The shopper is also entered into the available loyalty programs and presented with coupons and rebates. At the end of the shopping mission the shopper can either physically pick up the selections or arrange shipping. The ShopLive system supports multiple selling activities including auctions. It is also a rich data-base for merchants and allows targeted advertising. A live browser accesses the shopper to present sales and incentives to the customer. The ShopLive system connects the Shopper and the merchant to make the shopping experience more effective for both.



**FIG. 1**



**FIG. 2**

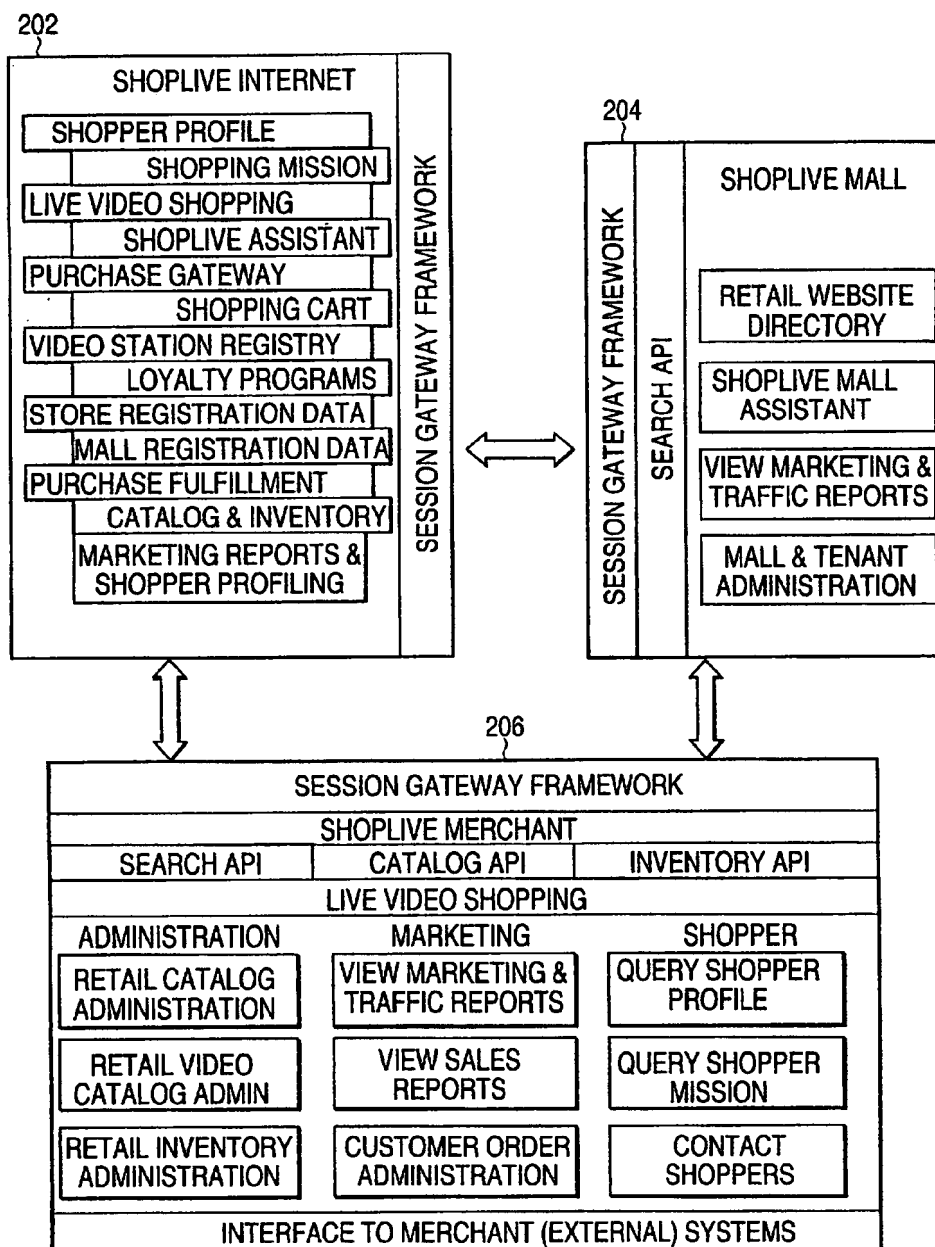


FIG. 3

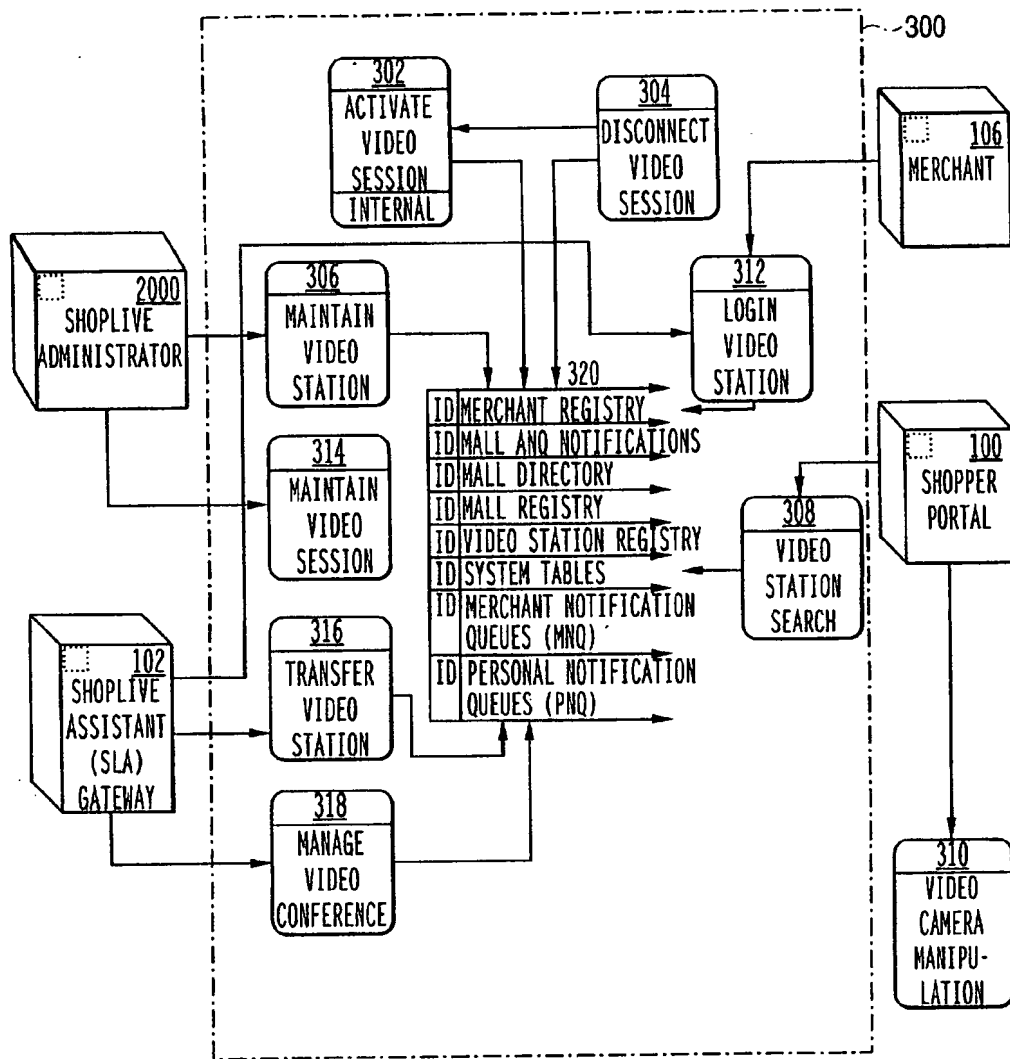


FIG. 4

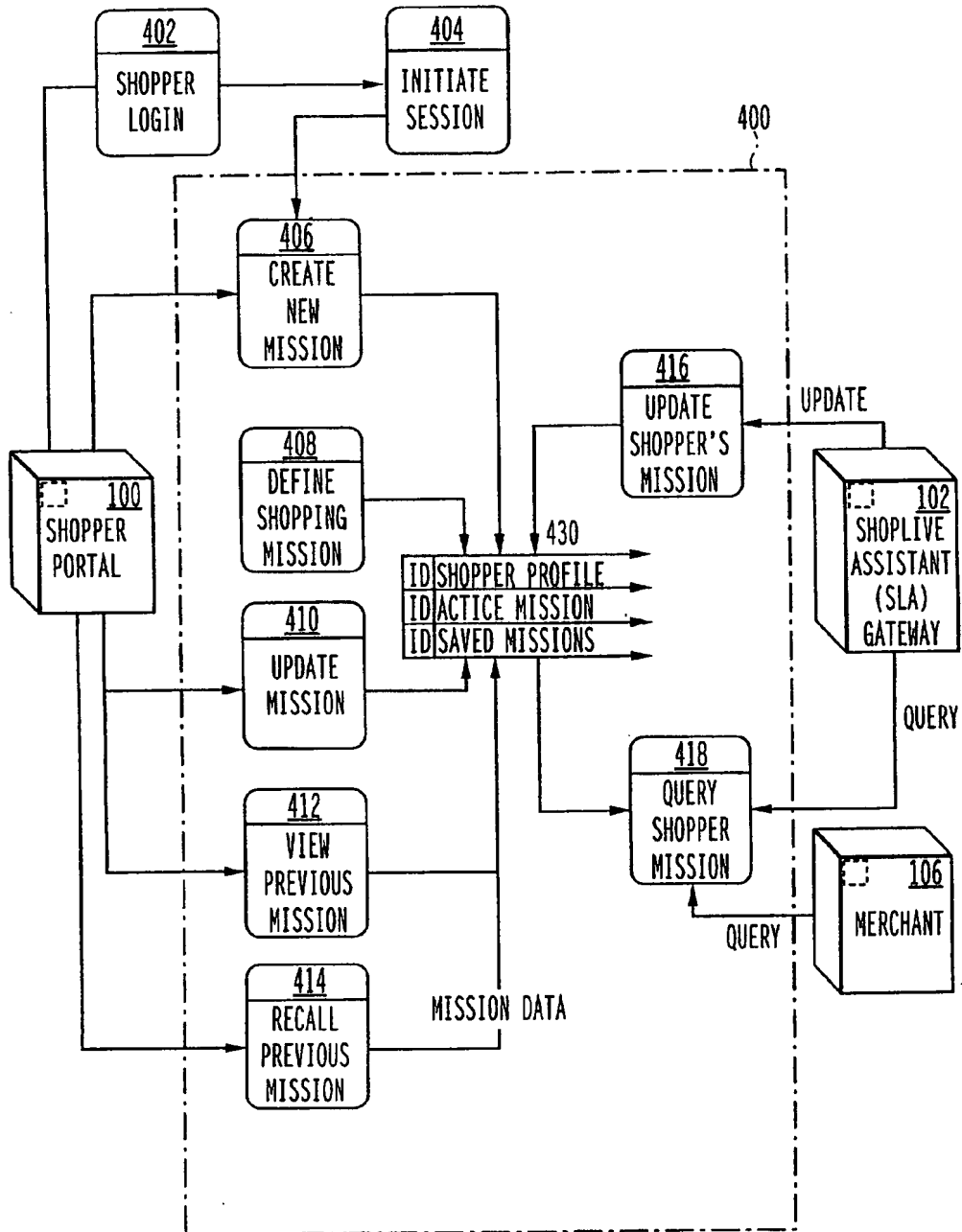


FIG. 5

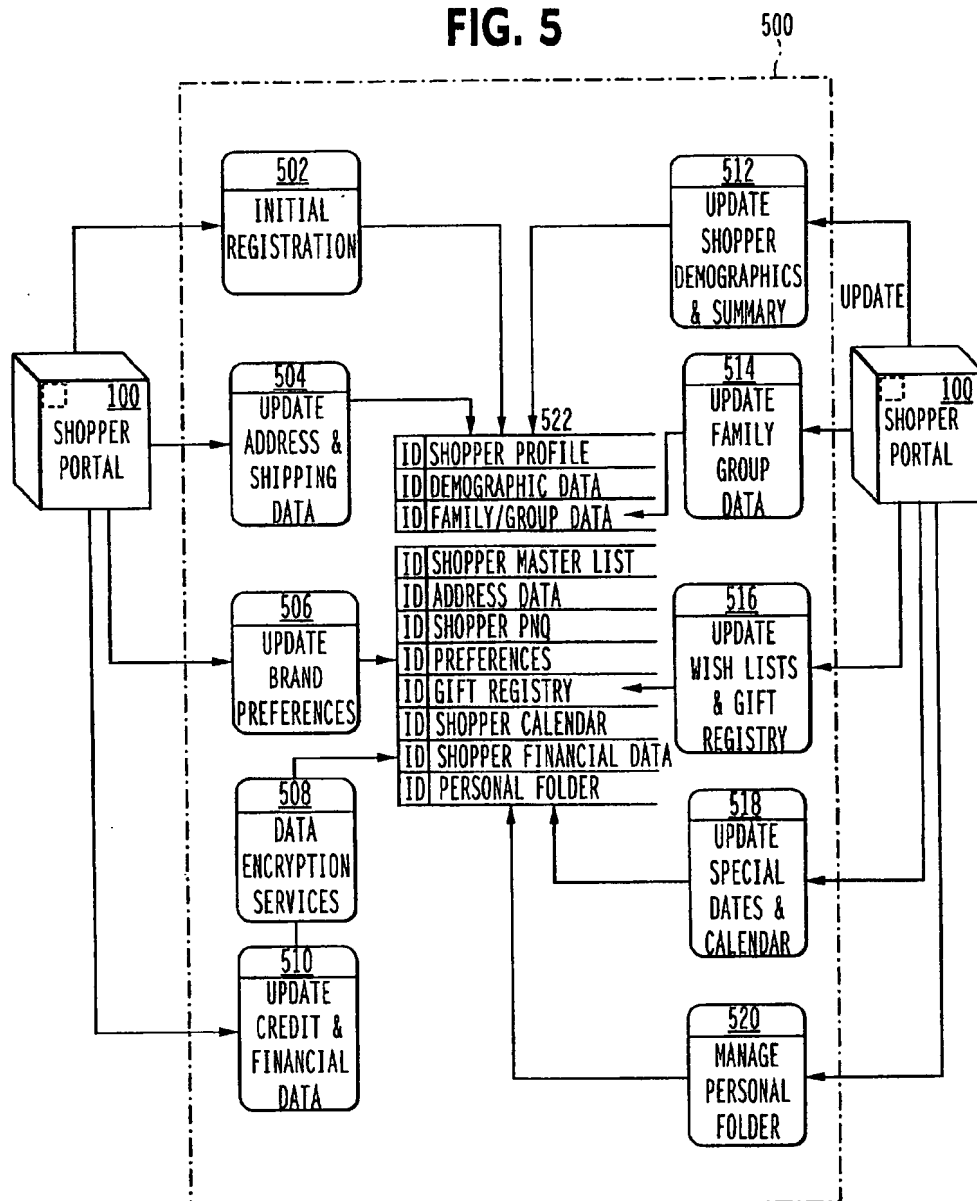


FIG. 6

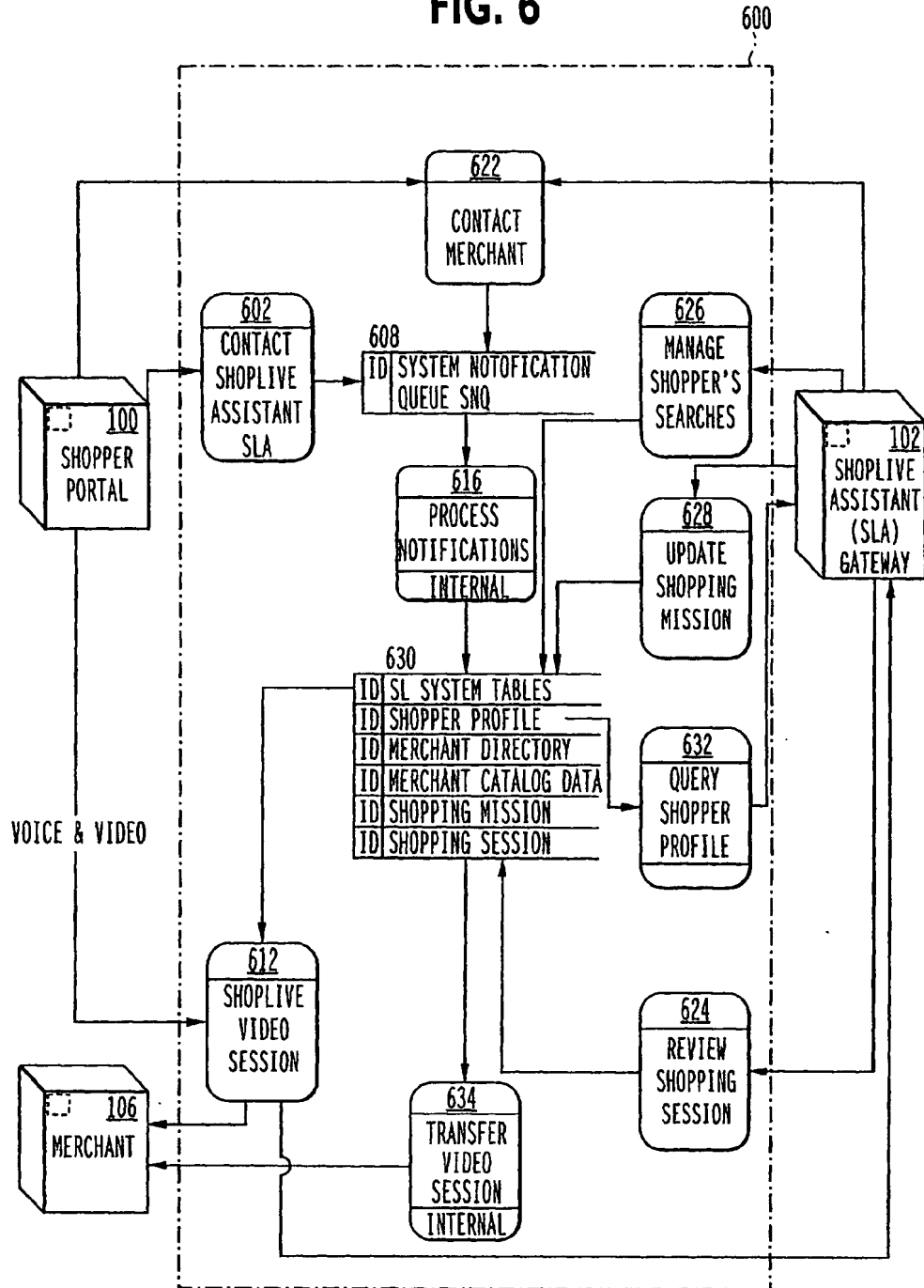


FIG. 7

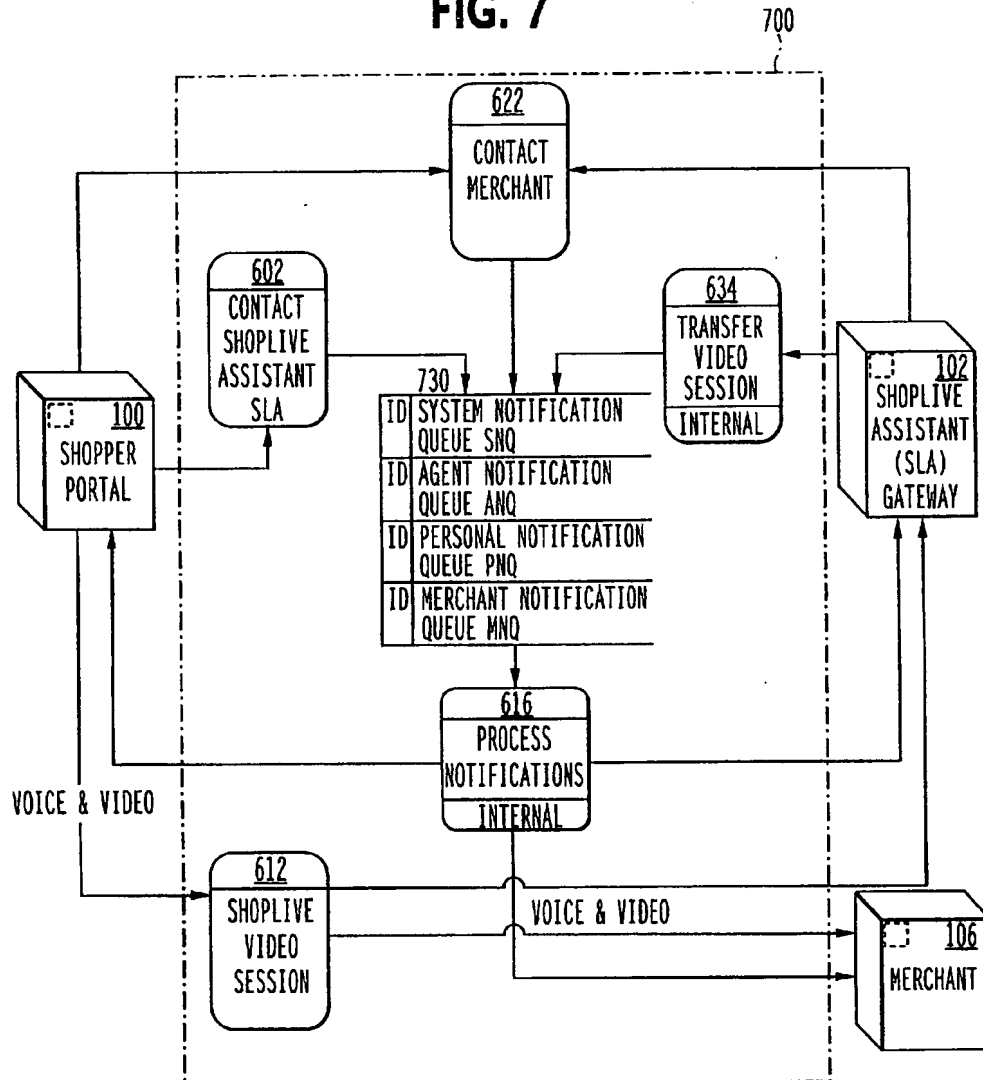


FIG. 8

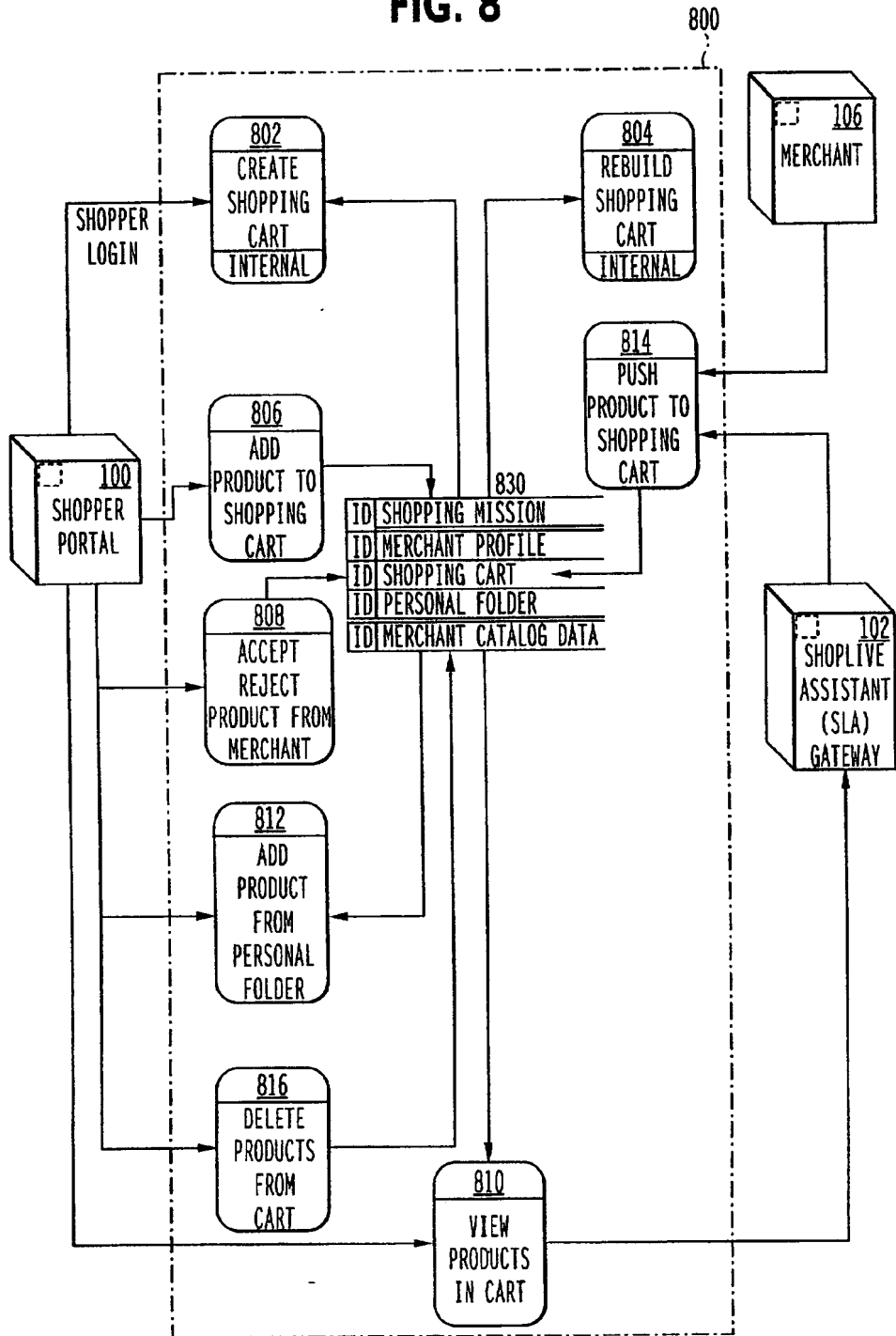


FIG. 9

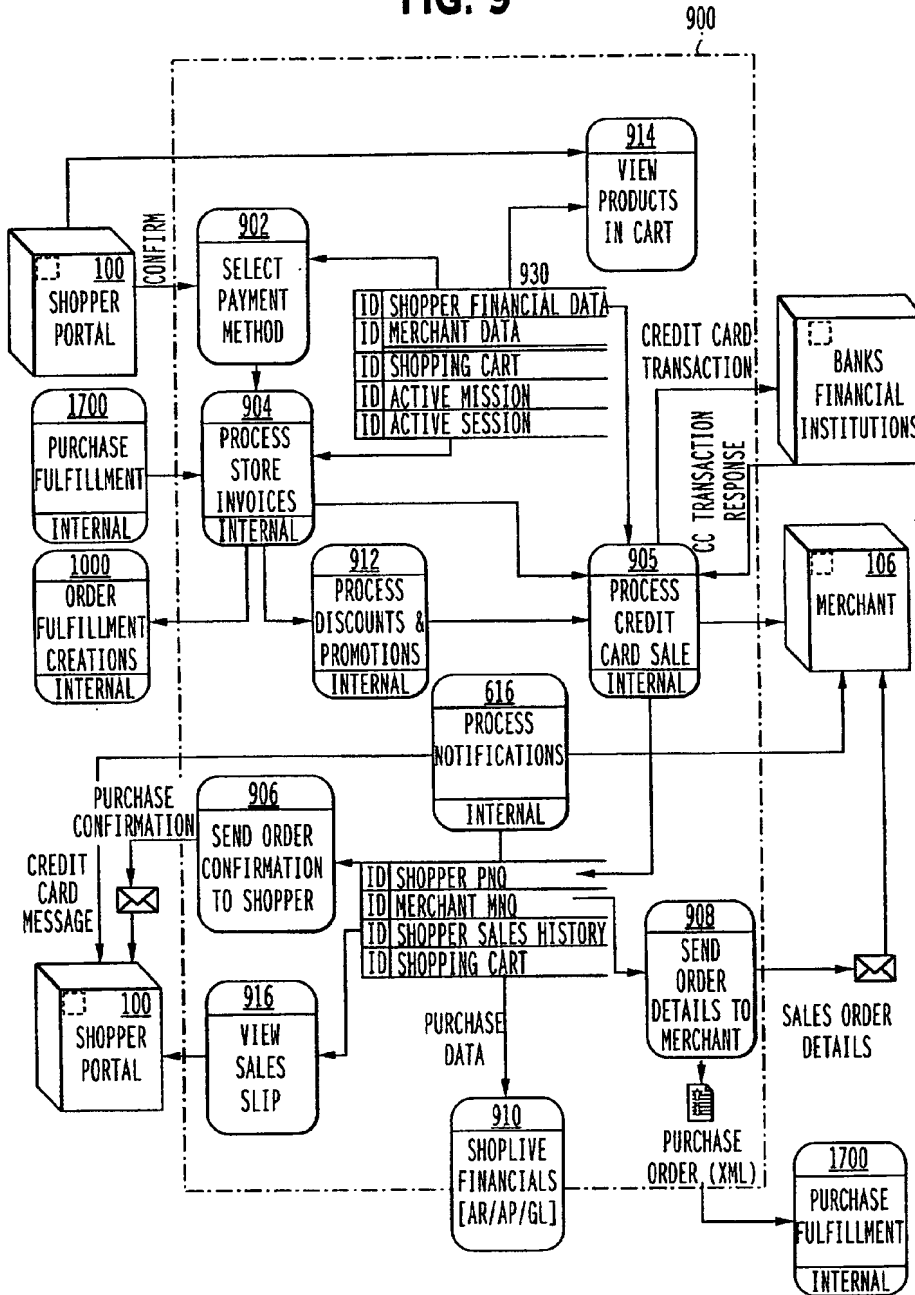


FIG. 10

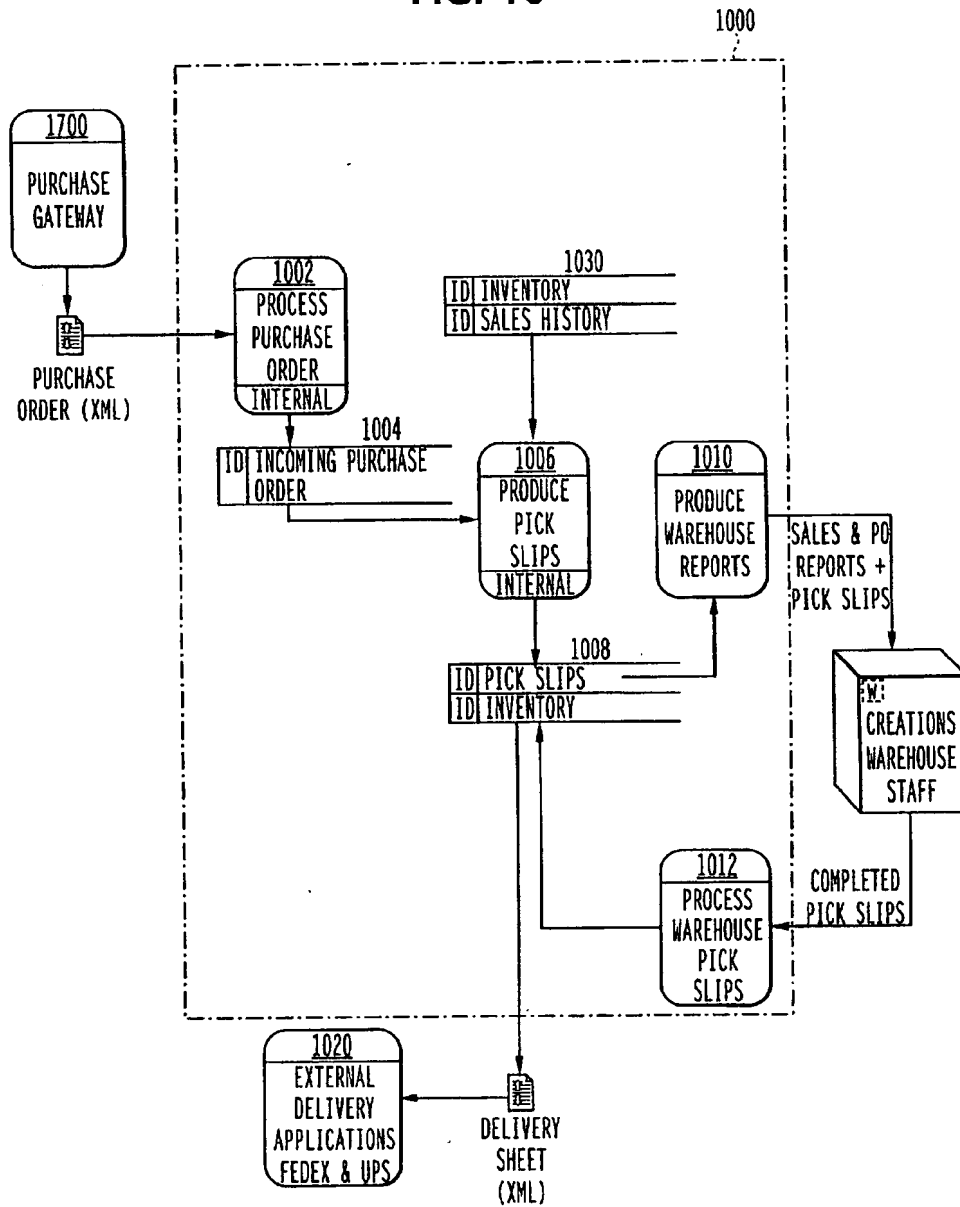


FIG. 11

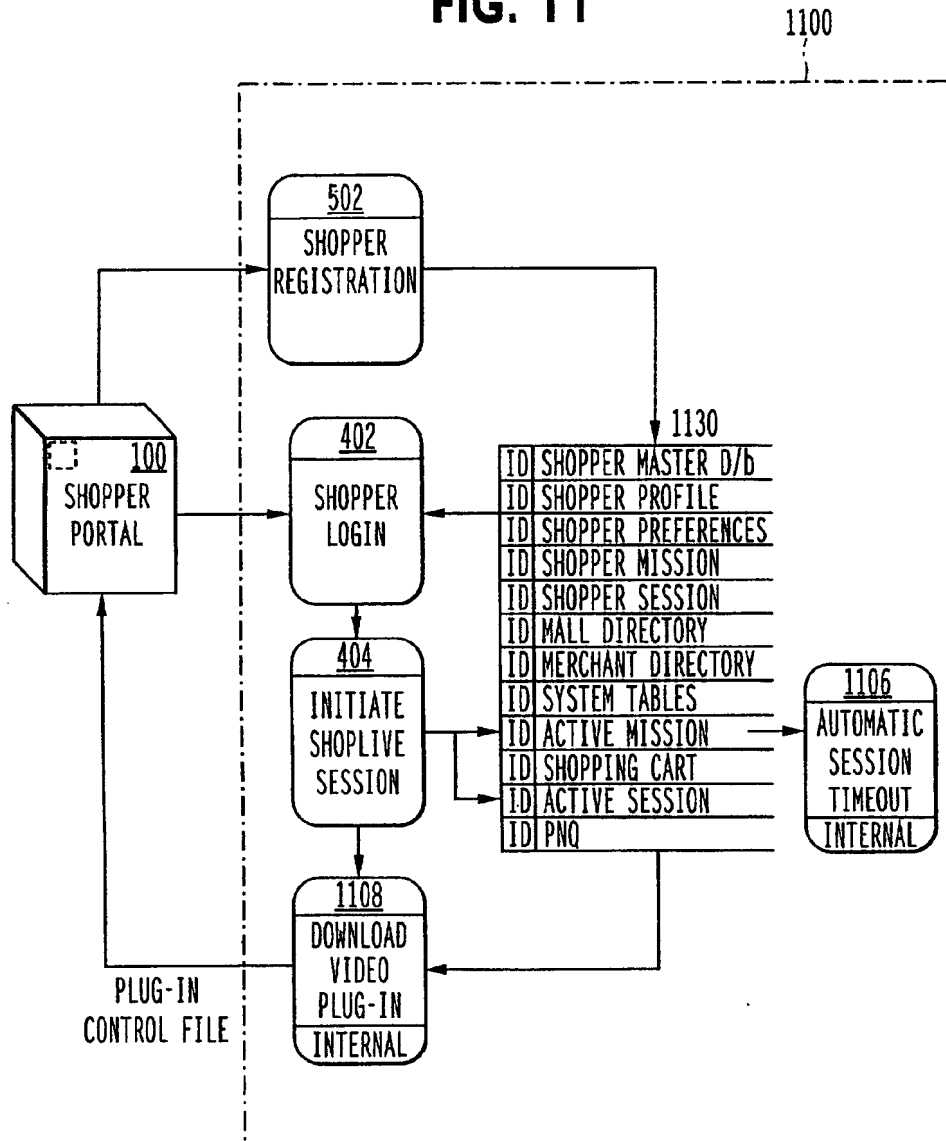
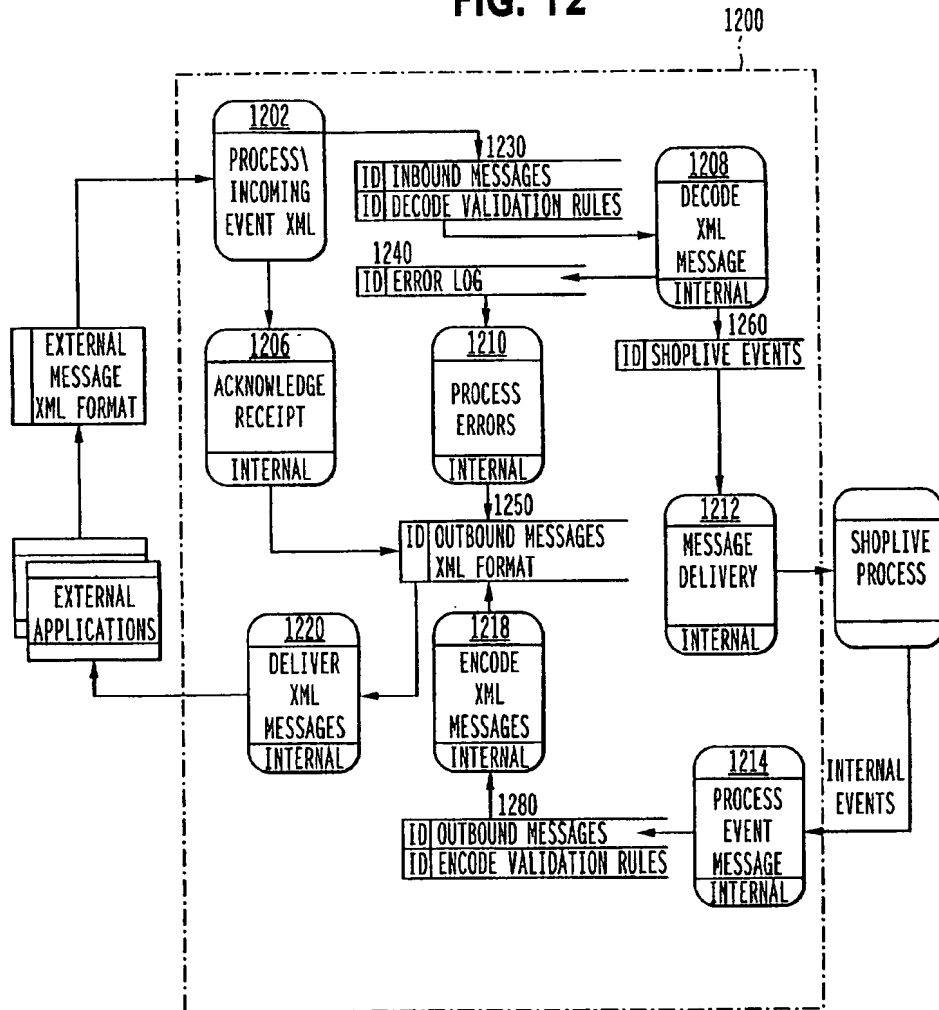


FIG. 12



**FIG. 13**

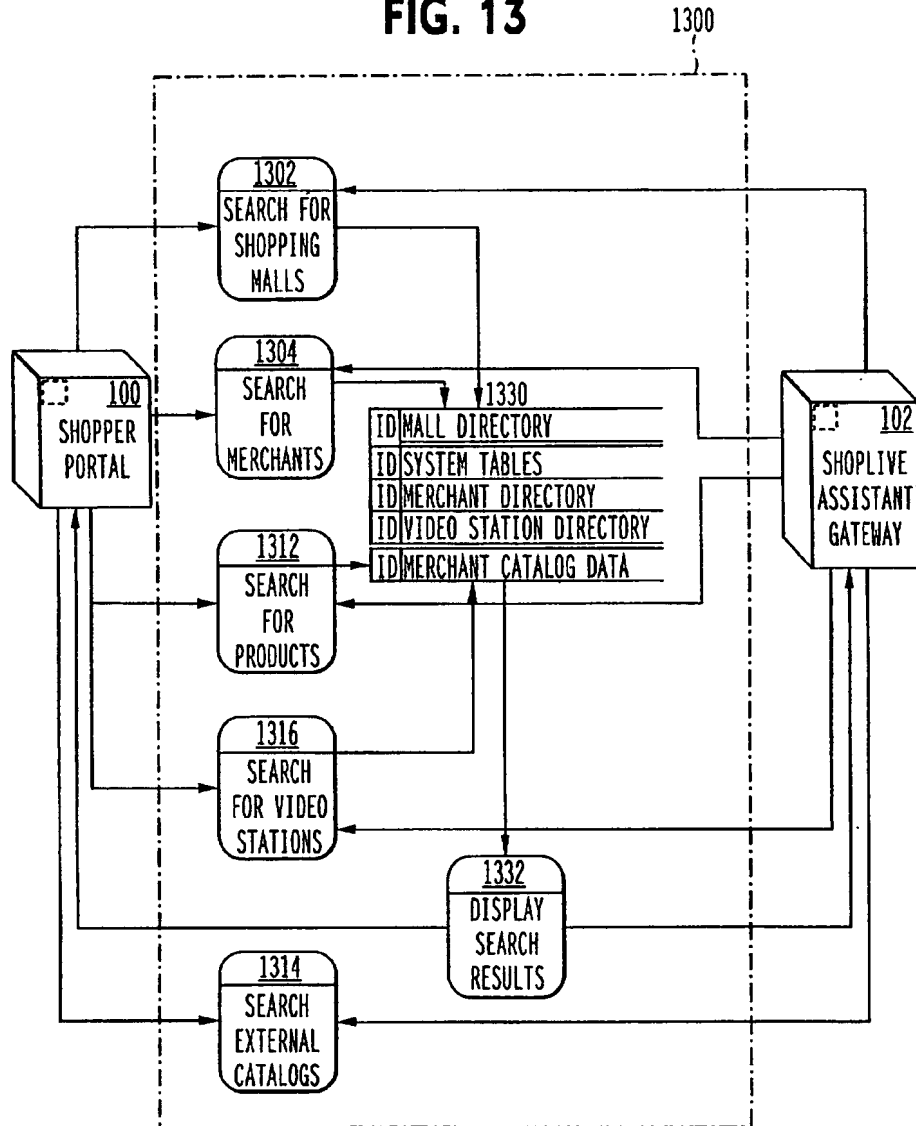


FIG. 14

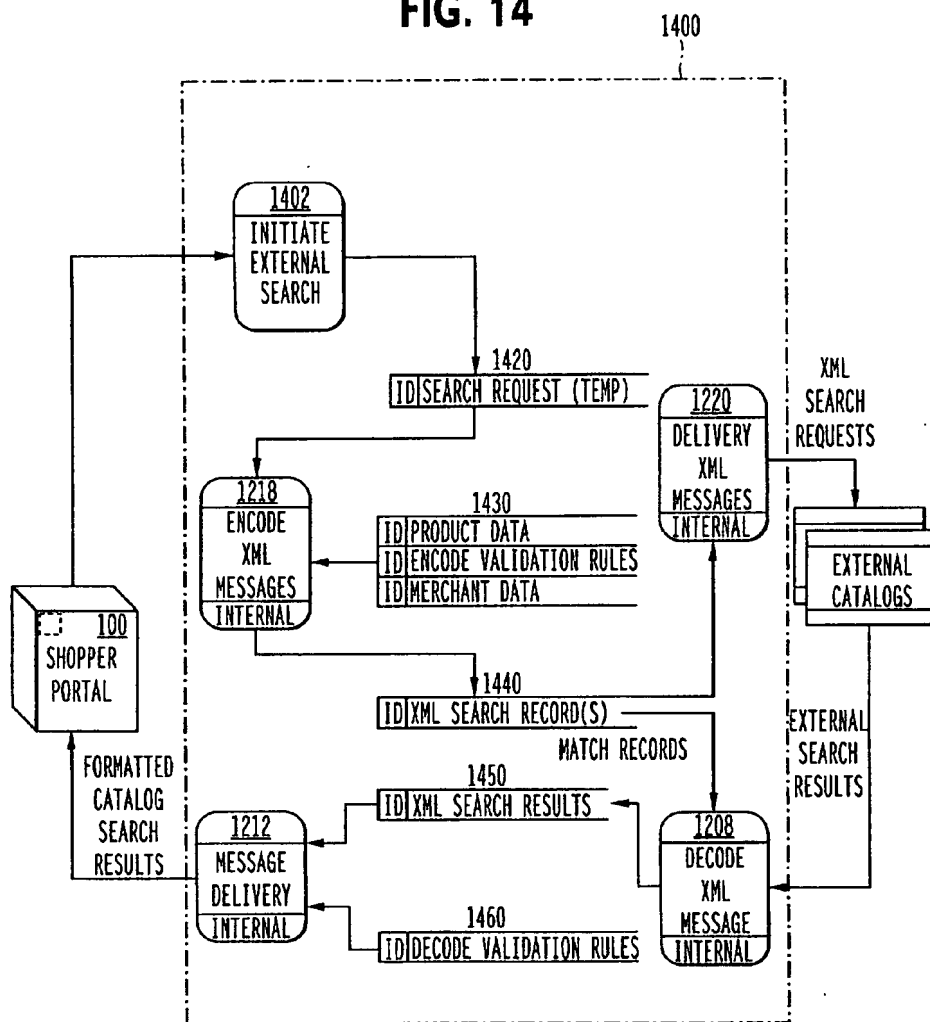


FIG. 15

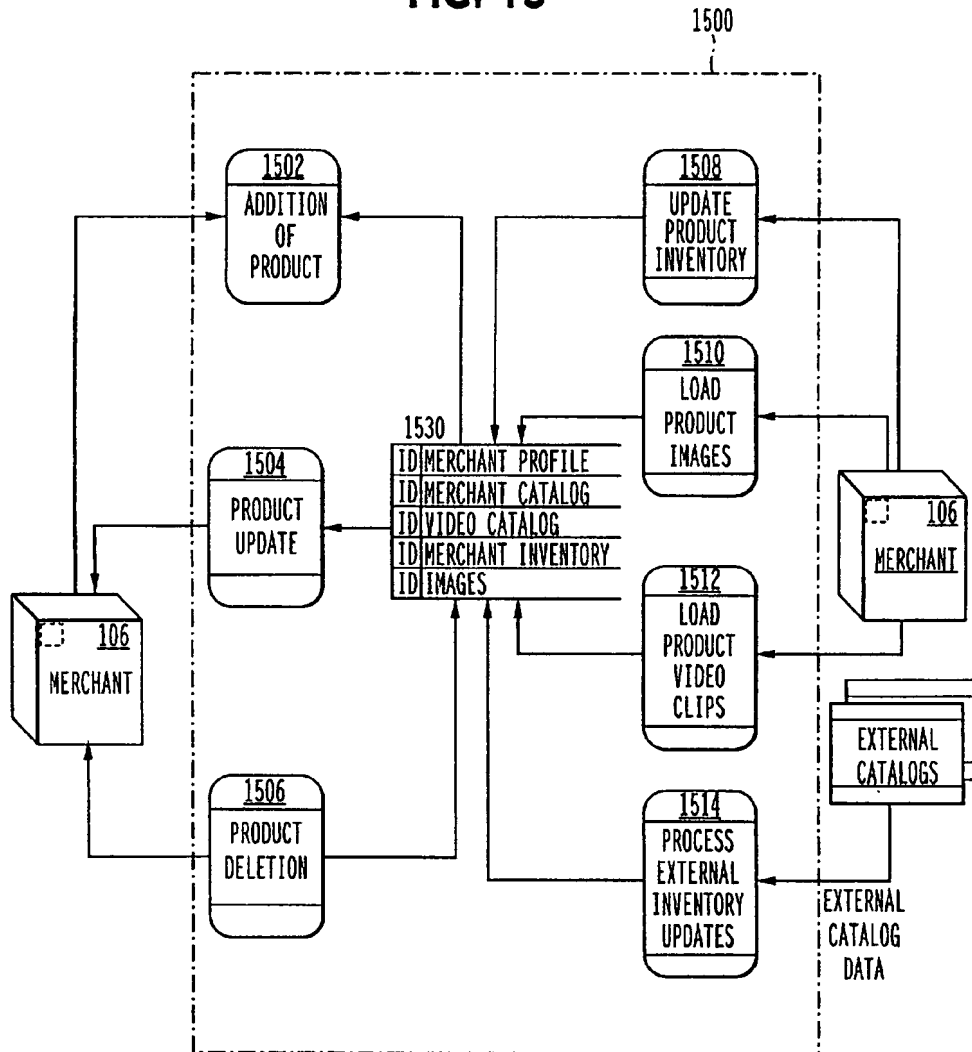


FIG. 16

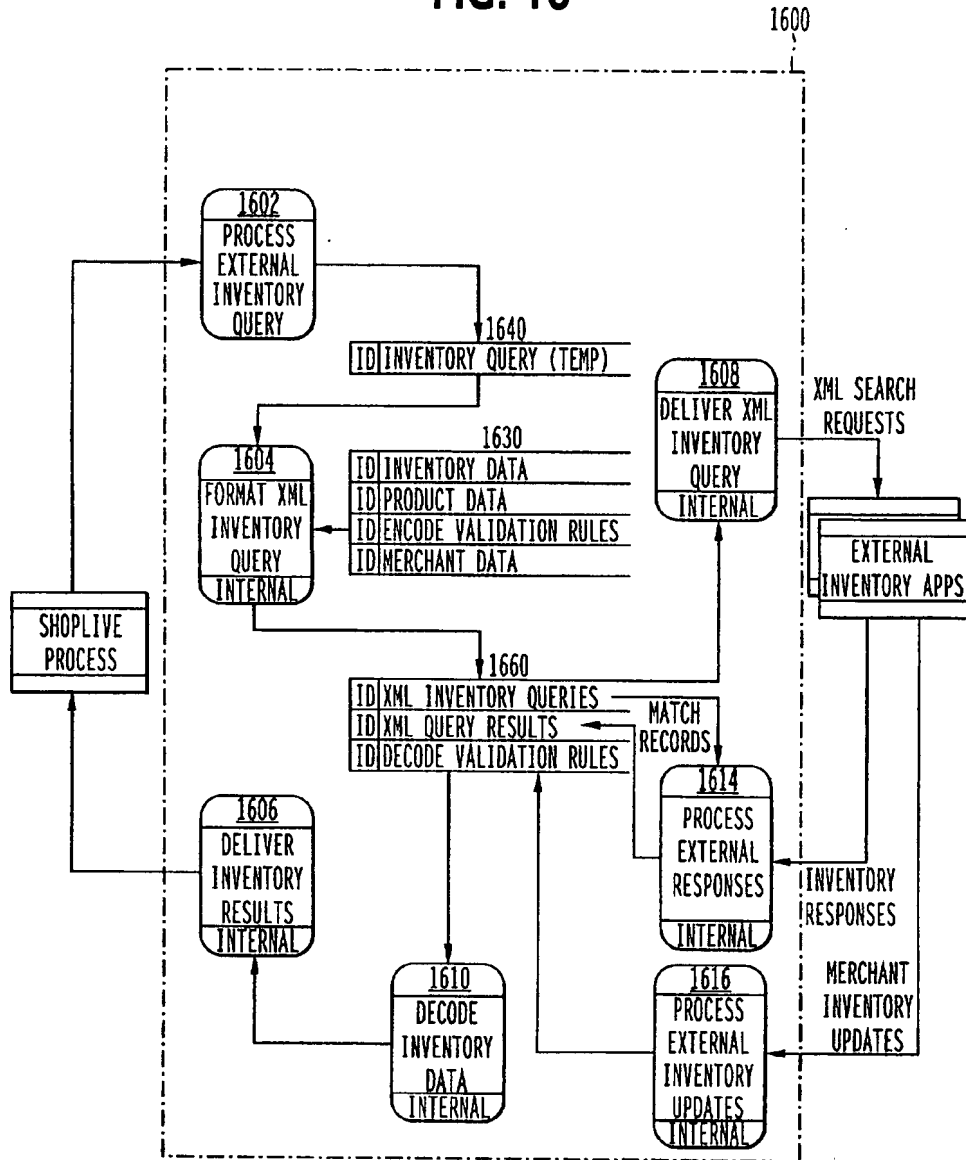


FIG. 17

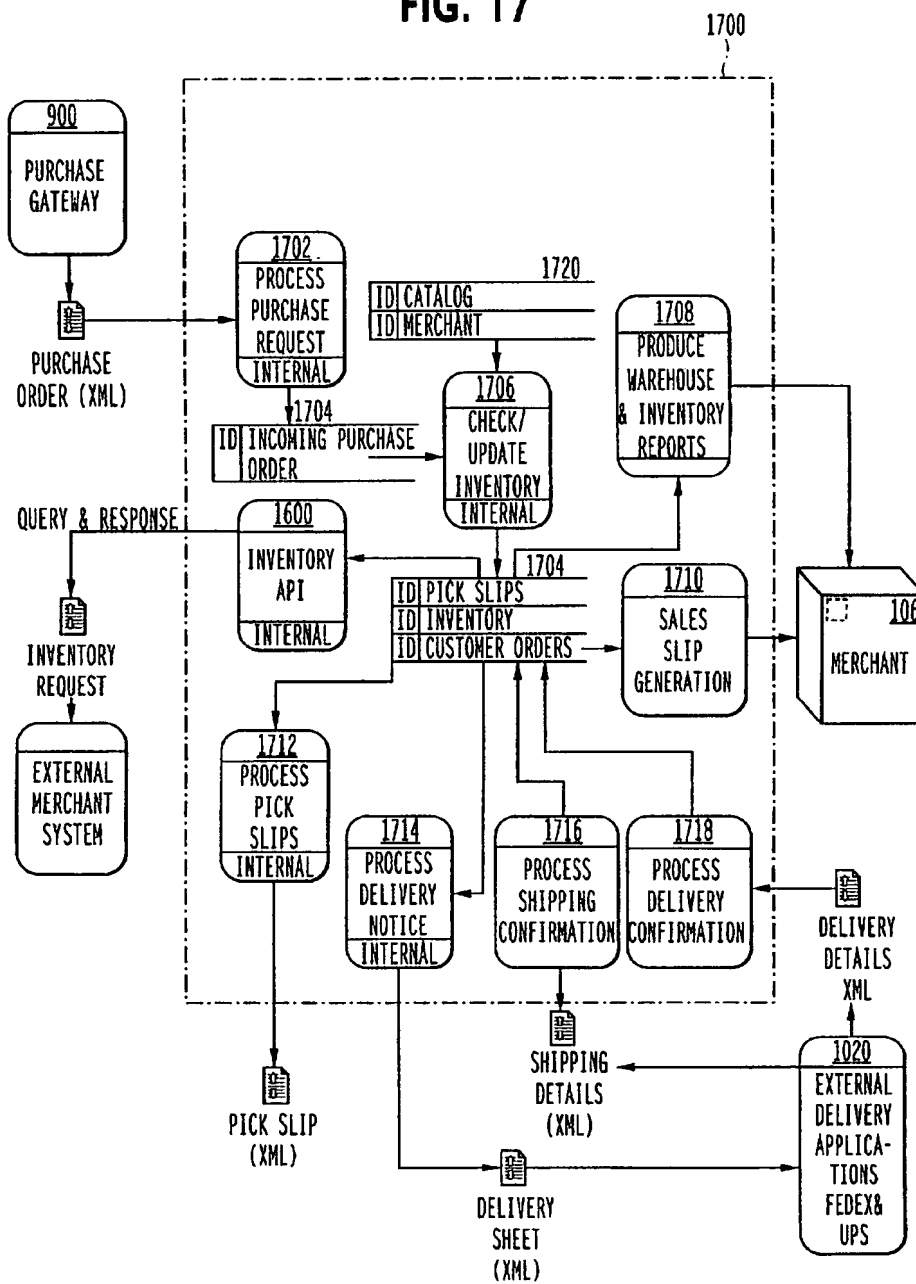


FIG. 18

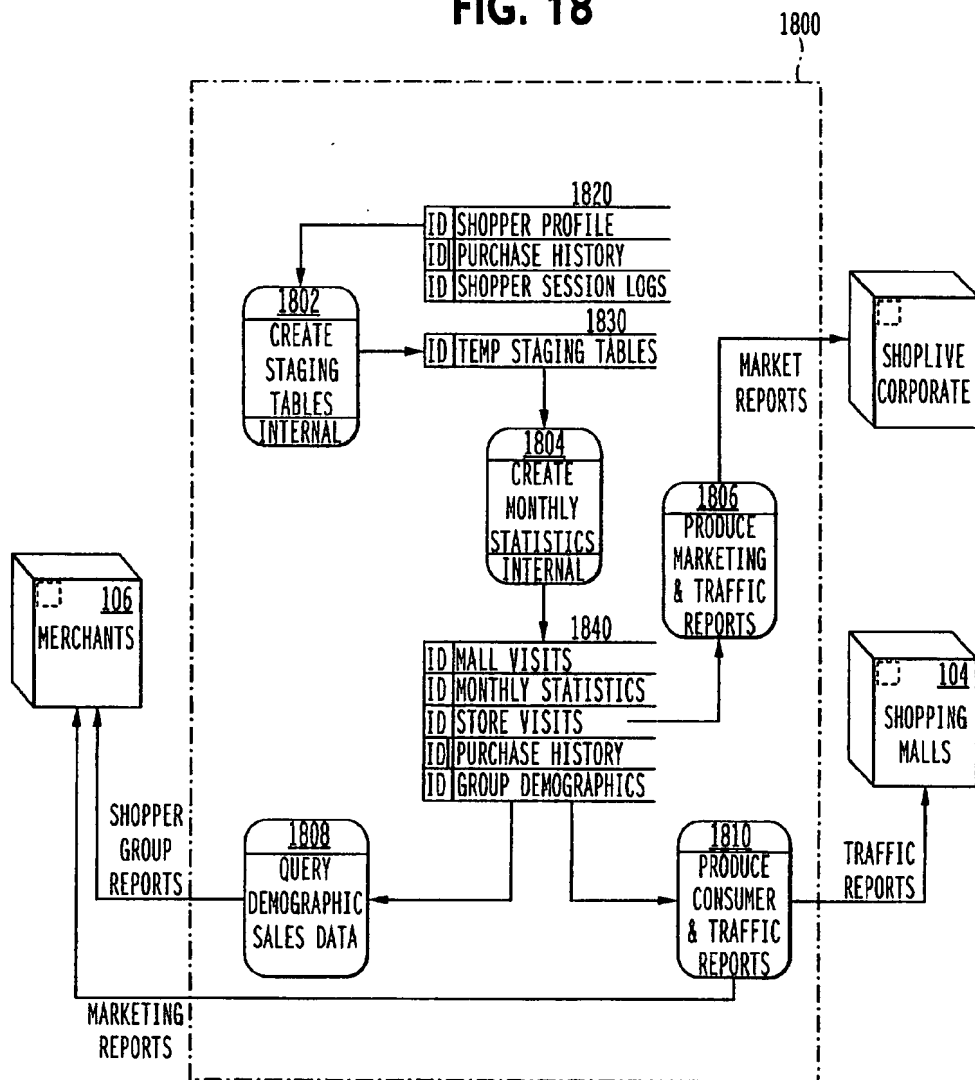


FIG. 19

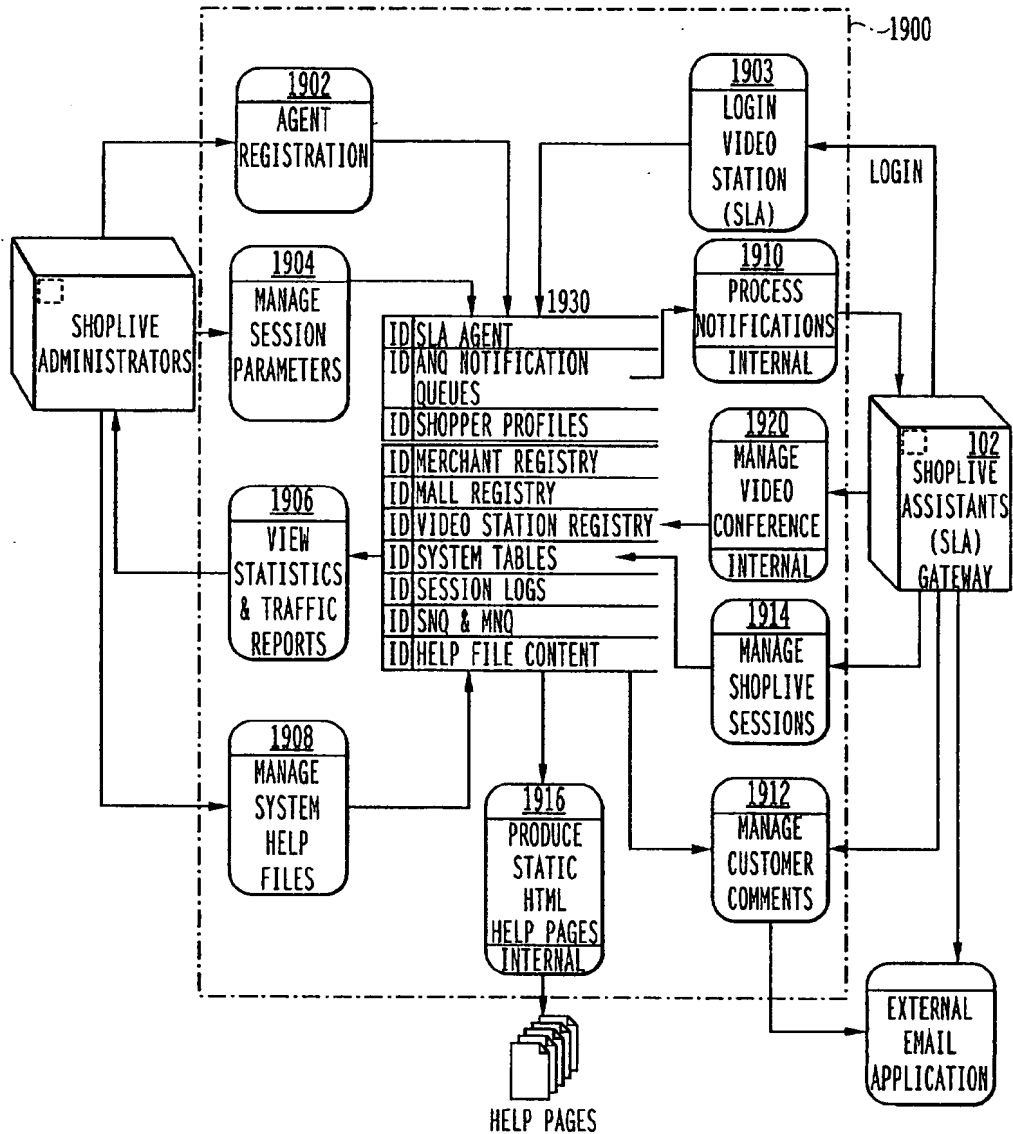


FIG. 20

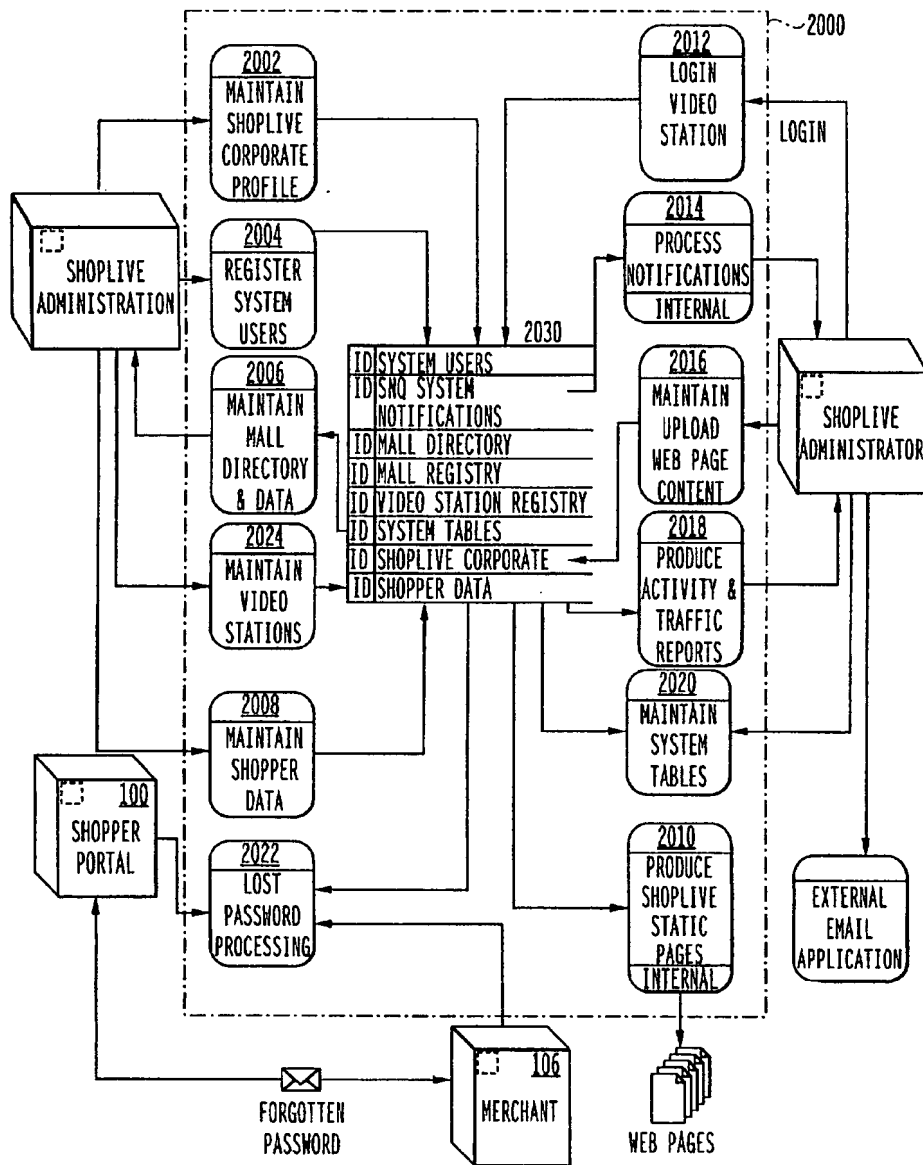


FIG. 21

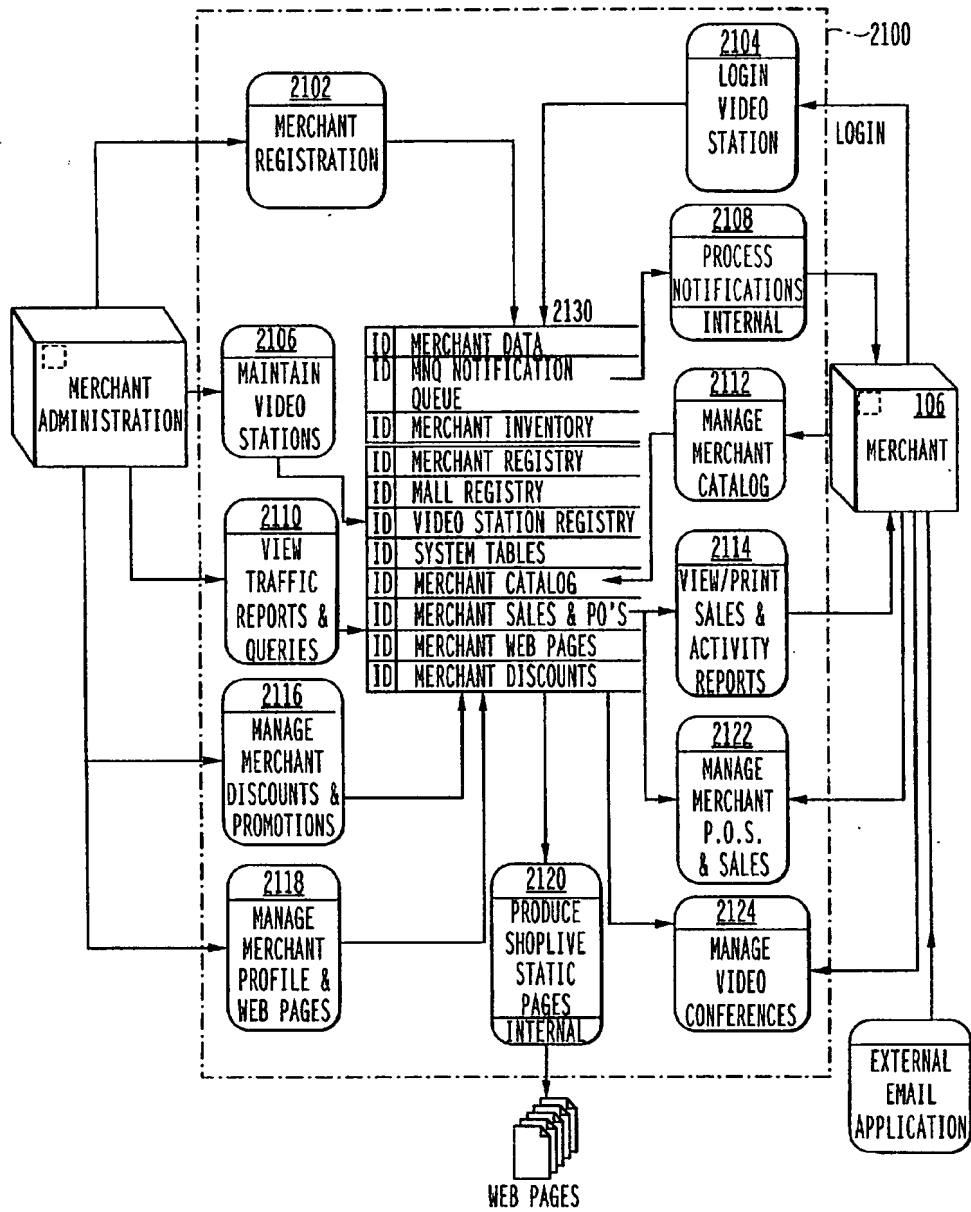


FIG. 22

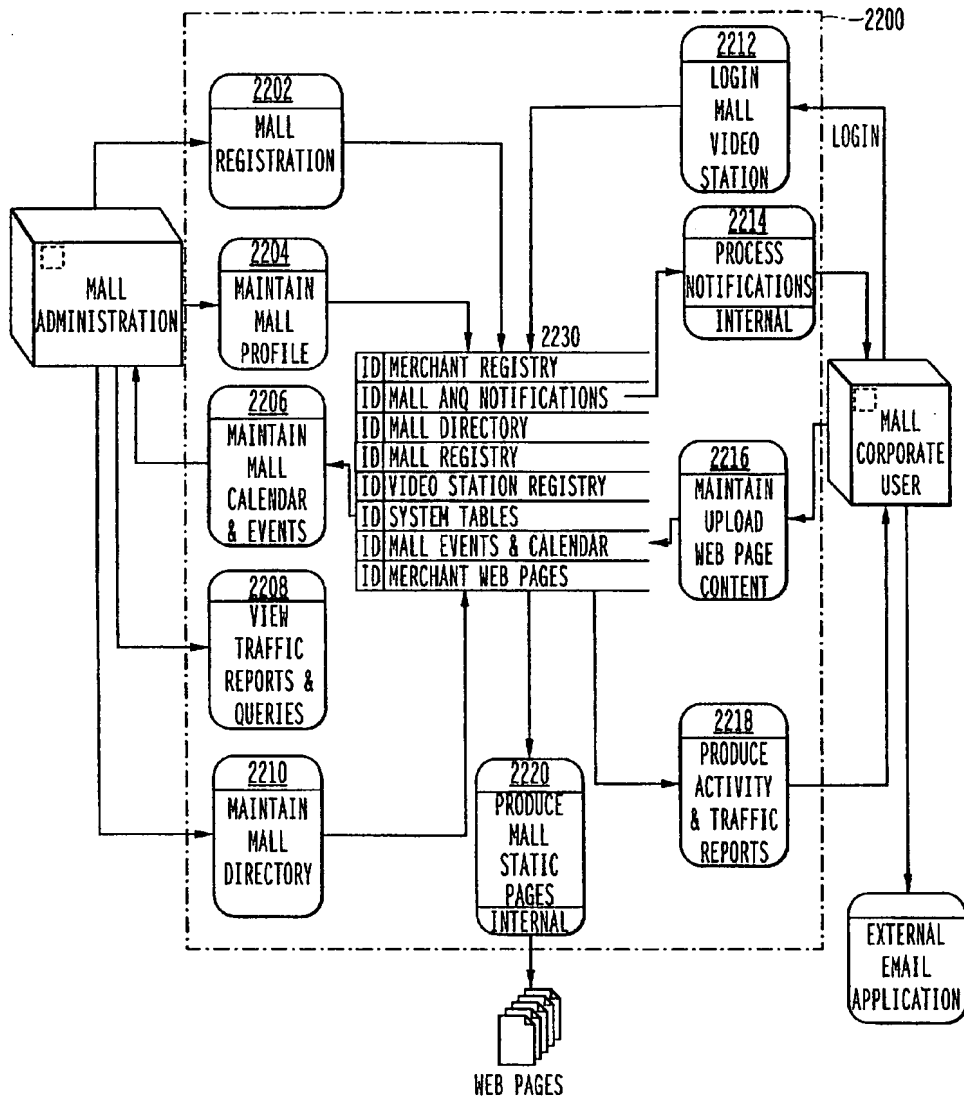


FIG. 23

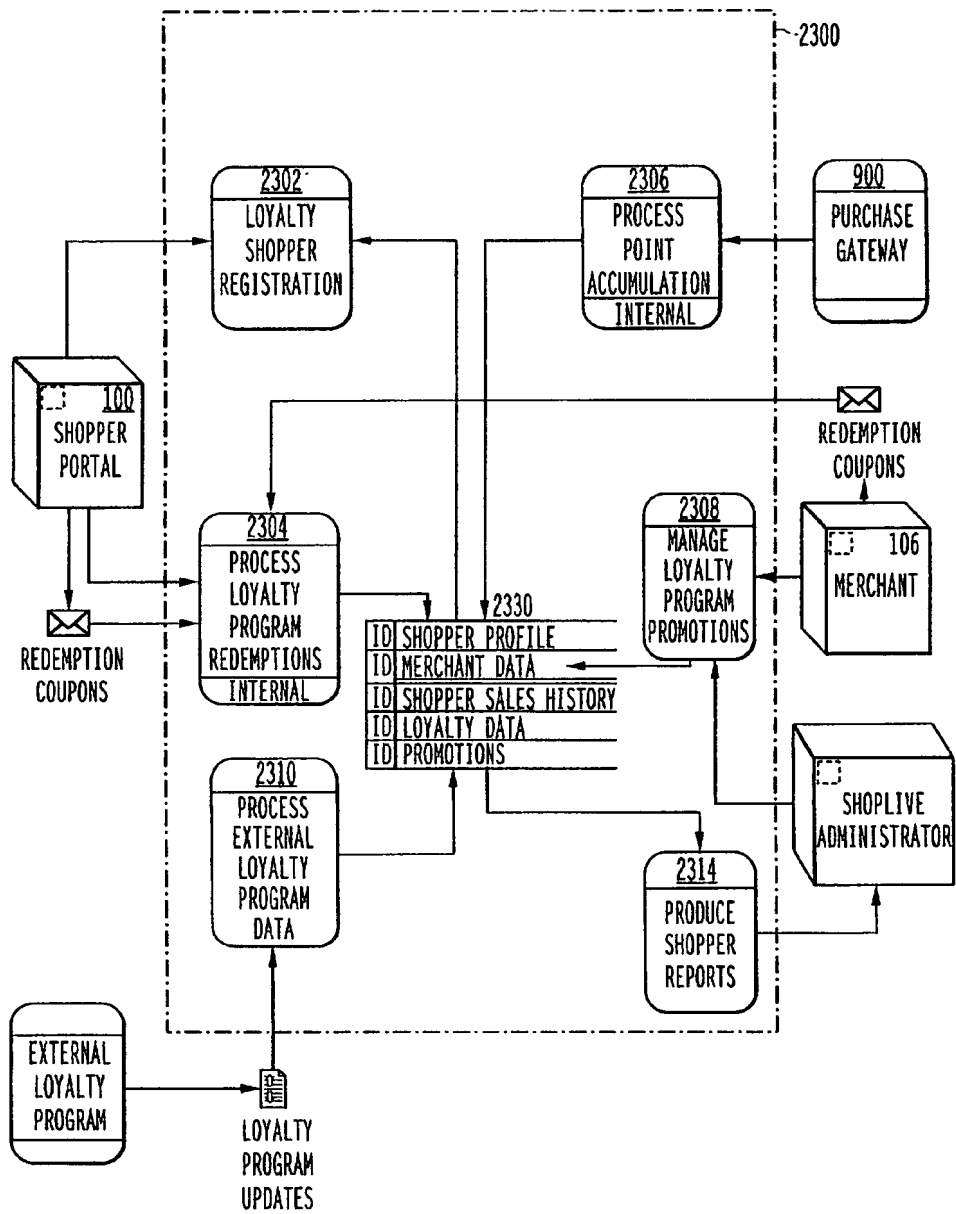


FIG. 24

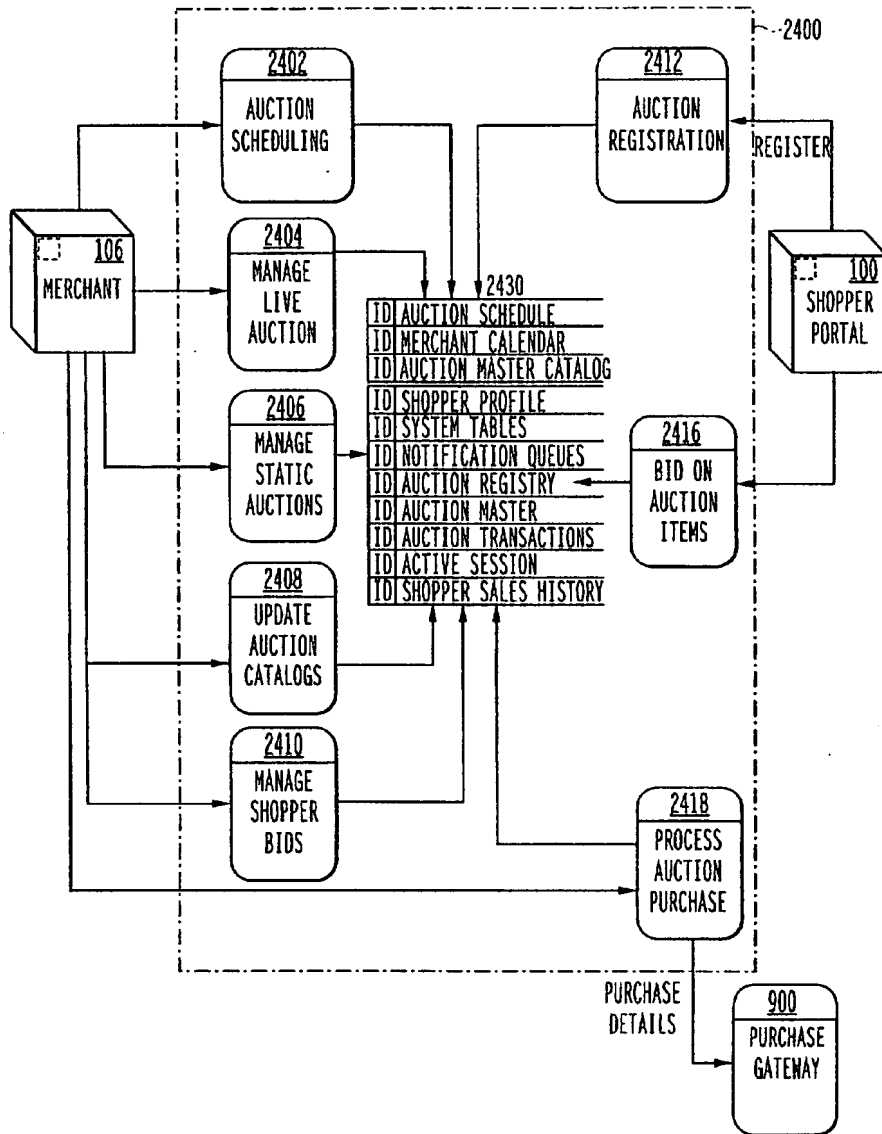
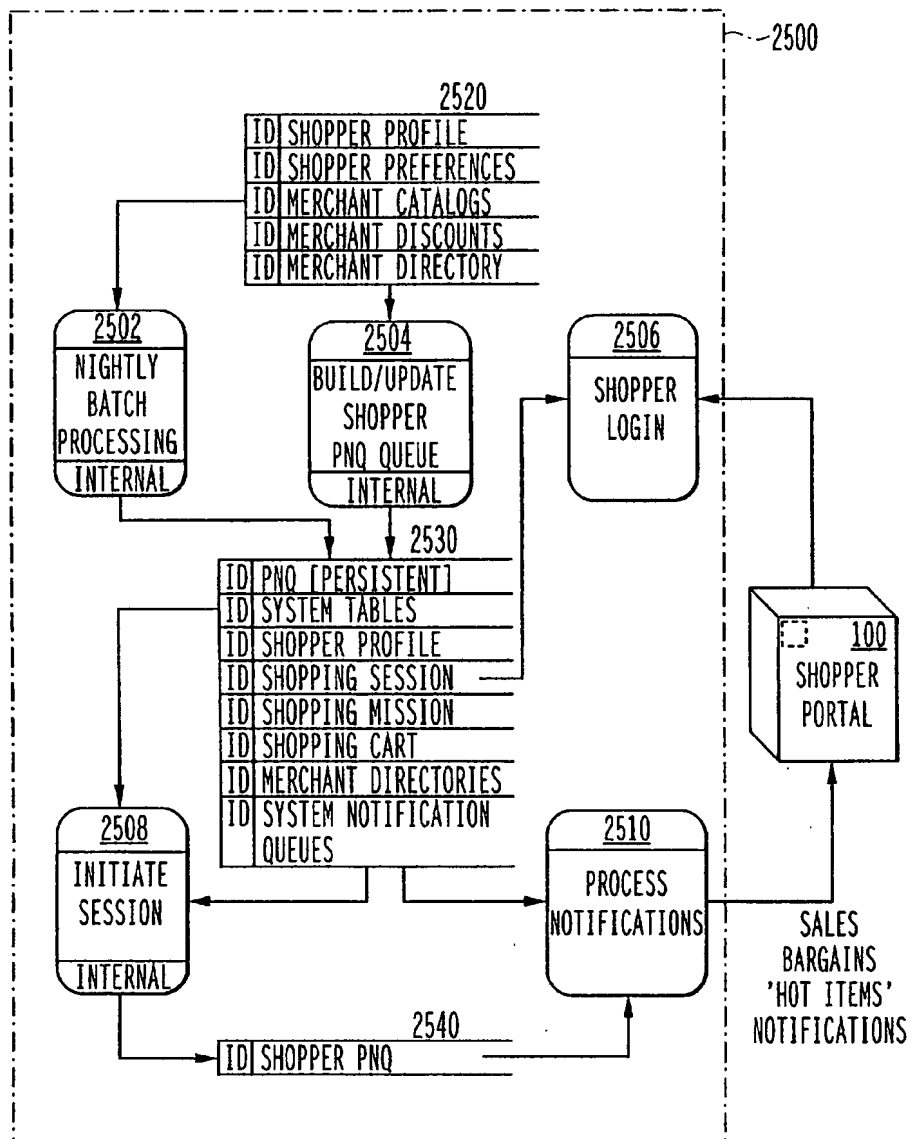
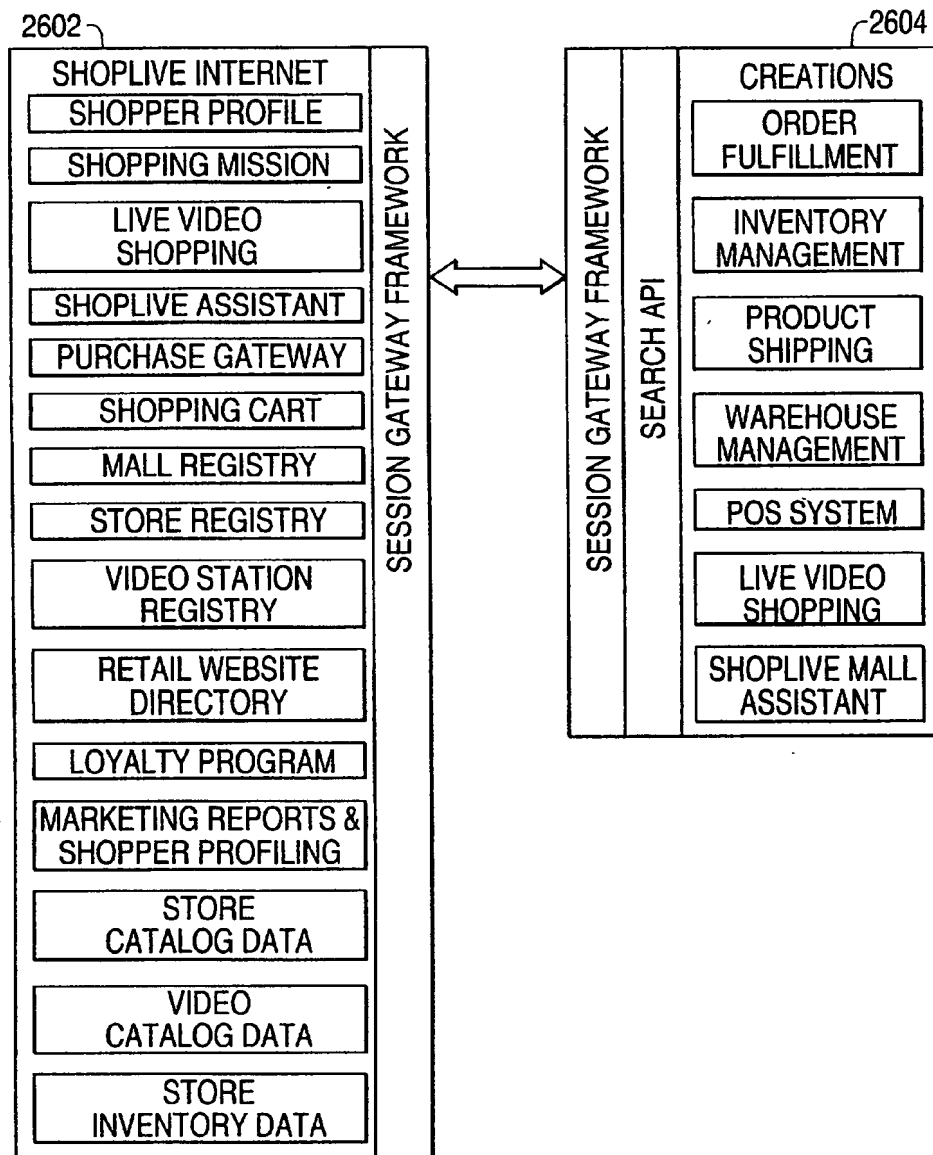


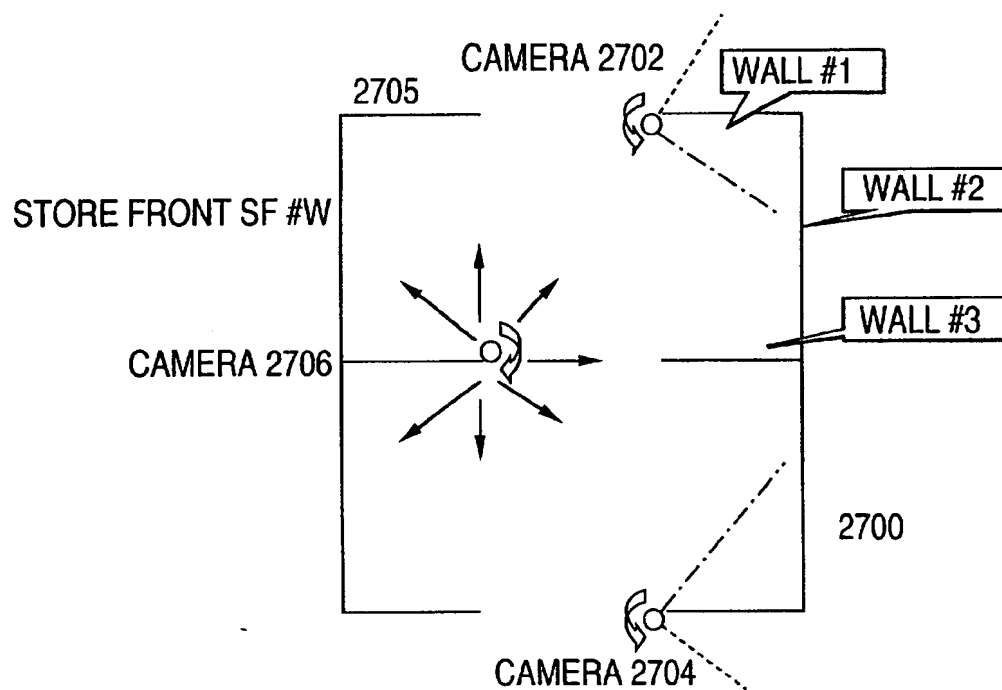
FIG. 25



**FIG. 26**



**FIG. 27**



PLAN VIEW OF CREATIONS STORE FRONT

**FIG. 28**

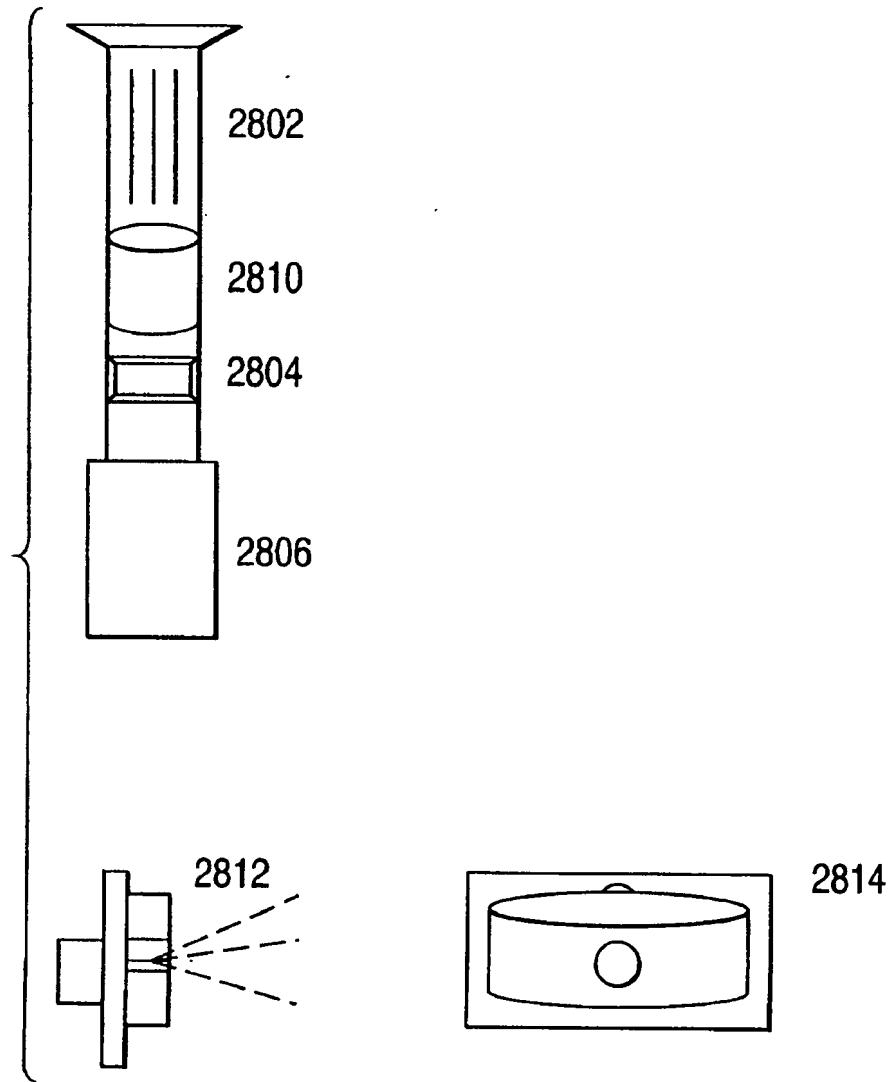
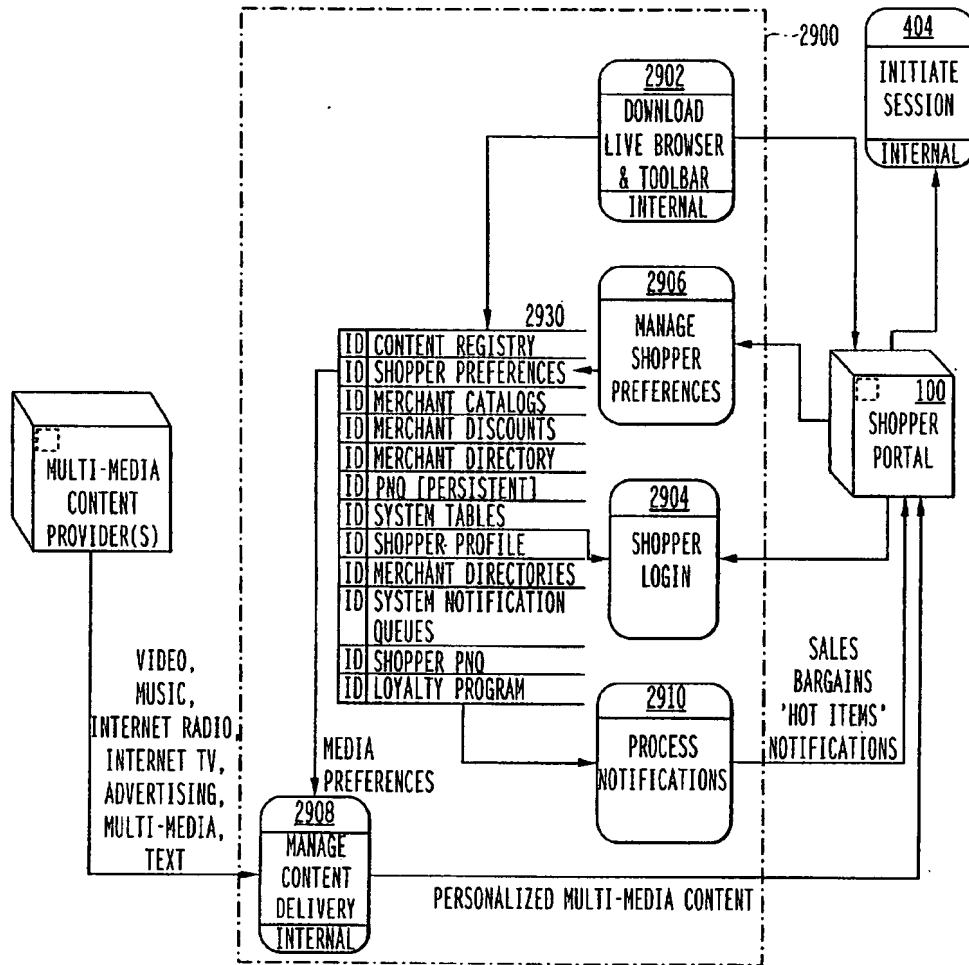


FIG. 29



## SYSTEM AND METHOD FOR DISPLAYING AND SELLING GOODS AND SERVICES

### CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No.: 60/194,016, filed Apr. 3, 2000 and U.S. Provisional Application No.: 60/253,112, filed Nov. 28, 2000 the contents of each being incorporated herein by reference.

### FIELD OF THE INVENTION

[0002] This invention relates to electronic commerce. Specifically, this invention relates to information processing methods for marketing and selling goods and services using the Internet or other interactive network to support live shopping and selling experience.

### BACKGROUND OF THE INVENTION

[0003] Current online shopping is basically a catalog operation where the shopper visits an e-store or collection of e-stores in an e-mall. The shopper navigates by lists or keyword search through the e-mall site each with a different user interface that may be unfamiliar to the user. The user is presented with scripted presentations including text and video to learn about merchandise. Some sites access merchandise through static video cameras that view a store location. Some of these cameras scan the merchandise displays including pan, tilt and zoom views. They may also present still pictures. They do not interact with the store personnel. Streaming videos are also used to display merchandise. The shopper then uses the web site to select products and to pay. The shopper must navigate through the web site. The result is frustration with the shopping experience and abandoning the attempt to make a purchase.

[0004] Another problem faced by online merchants is an inability to efficiently attract potential consumers to their web sites. Television, Internet and newspaper advertisements are used to drive traffic. The effort and the infrastructure required to support it is very expensive and may drive some online merchants out of business. Add to this, the fact that web sites are centralized and not interactive at the local retail location nearest to or preferred by the shopper.

[0005] With the increasing popularity of the Internet and the World Wide Web, it has become common for merchants to set up Web sites for marketing and selling product. No one merchant can provide all the products and services to a shopper to meet shopper's interest. Related products and services may even be necessary but not offered by a given merchant. A shopper who buys a light fixture from a lighting store, for example, may need an electrician to install it. A furniture store typically does not carry the accessories that are needed to complete furnishing a room. A merchant may offer related products and services.

[0006] Two-way video services exist for teleconferences and static videos for viewing merchandise. These services have not been used to simulate an in-store retail-shopping event. A sterile presentation of merchandise without knowledgeable assistance of a sales assistant chills the buying experience. Existing Browsers aid shoppers by allowing them to click onto a site and view merchandise. An example

of such a browser is that provide by Media Browser. However, it is not a live presentation and does not have the support of a sales assistant.

[0007] Frustration and lack of personal attention is the main reason for a buyer terminating an online purchase. The present invention addresses these and other problems that benefit from an interactive system with a live sales person.

### SUMMARY OF THE INVENTION

[0008] The invention allows online shoppers to set the criteria for their ShopLive shopping session, find ShopLive enabled brick and mortar stores that meet their criteria and obtain live audio and video assistance. Shoppers can initiate an e-sales call with a live sales person who shows them a product via networked live Internet enabled cameras and who responds to inquiries to demonstrate or display the product real-time. Shoppers have a unique experience that is liken to onsite shopping by interfacing with a live salesperson while being able to view the product from various angles as if they were viewing it in person. Other shoppers may join in the session. Shopper assistance may be also provided by automation including animation of a live sales assistant or voice recognition and response systems. Artificial intelligence may be used to animate the shopping session to simulate a live assistant or a comparable experience. All of these systems interact with the shopper in a user-friendly way mimicking a live shopping experience.

[0009] A shopper enters the ShopLive environment through a ShopLive portal. The portal can be from a home terminal, kiosk, in-store terminal, and mobile communications device or like means of accessing a communications network. A shopper may initiate a single session or log on as an enrolled shopper. Prior enrollment speeds the shopping process and provides information for assisting shopper by brand, price, etc., and promotes use of rewards, coupons, rebates and purchase now discounts or incentives. At some point in time the shopper is enrolled and a personal shopper's profile is created that may be updated over time. A shopper may also create a shopping list to define goals and even spending limits for products and services as well as a request for consultation on selections.

[0010] Shoppers in a typical shopping session establish contact with merchant(s) of a product(s) that the shopper is interested in purchasing through a centralized service or direct communication between buyer and seller. The shopper and merchant are connected over the Internet or similar telecommunications network through a live interactive audio video and data link in real time conversational or chat mode. The shopper asks questions or describes their interest and the merchant responds and offers suggestions and alternatives, display items via video camera or like device, and provides information while describing features of the item as in an in-store shopping and sales encounter. The item may be displayed for the shopper from different views. The merchant describing the item may enhance the shopping experience by describing the texture and similar products. Tactile sensors used by the shopper at her portal may simulate feel, weight and color and these same characteristics. Likewise, holographic fitting of clothing can place the item on the shopper's image to give a representation of the fit and appearance of garments. This invention provides the convenience of round-the-world on-line shopping from any location aided by the personal service of the merchant.

[0011] Just like in a store or mall, the shopper may visit several retailers and make several selections to purchase as they go along. The choices are then aggregated in a single shopping cart and the shopper checks out with one purchase transaction using a single payment source such as a credit card if they so chose. Or the payment can be spilt. This one stop shopping and check out avoids surfing multiple outlets and mimics the actual shopping experience of a retail environment.

[0012] ShopLive accumulates data on purchases and presents it to merchants, mall owners, designers and manufacturers for rewards programs, rebates and coupons. ShopLive also provides a ShopLive reward for the shopping site to incentivize shoppers to access merchants through it.

[0013] ShopLive has a composite data base of shopper's preferences and buying habits and from this data creates a profile from which special offers can be made for sales, limited stock items, promotions, or to meet a designated preference or request. This database accumulates merchant and payment type sales data to create a more complete shopper purchasing profile. It also accumulates data on how the shopper accesses merchants by the method of portal used to enter the ShopLive system. The database allows merchants to offer shoppers items at locations nearest them and tailor sales and promotions to fit the buying pattern of their Shopper group.

[0014] The invention utilizes the existing market infrastructure of existing brick and mortar retail stores, wholesale and distributor warehouses and manufactures distribution channels. Each part of the system does what it does best. The retail merchant interfaces with the consuming public and provides the mix of goods and services to their shoppers. The retailer deals with one or more wholesale/distributors who specialize in certain types of goods obtained and warehoused in quantity. Delivery of goods is through existing distribution methods using various delivery services.

[0015] ShopLive uses technology to overlay this existing infrastructure to enhance its capabilities and to provide local access to product(s) and services to the shopper and increase the retailer's reach. Broadband telecommunication networks provide the pipe through which the content supplied to the consumer is piped. Its widespread introduction makes the ShopLive experience attainable.

#### OBJECTS OF THE INVENTION

[0016] Accordingly, an object of the invention is to enable a merchant to provide real time access to merchandise by remote viewers and to interact with them via video and audio to display products and to conduct a selling conversation with the consumer.

[0017] Another object of the invention is to create a shopping mission definition to allow shoppers access to the appropriate merchandise or service to meet their criteria.

[0018] An object of the invention is to create a Shopper profile to navigate through a shopping session to more easily accomplish the Shopper's objectives.

[0019] Yet another object is to create a transaction gateway to manage the shopping experience.

[0020] Another object of this invention is to provide live service support to the shopper for information on the product accessories, on its use and installation as appropriate.

[0021] Yet another object of the invention is to create a single shopping cart for ShopLive shoppers to fill from one or more merchants for a single check out from a shopping session.

[0022] An object of the invention to create portals for Shoppers to enter the ShopLive system that is easy to access and navigate.

[0023] Still another object of the invention is to create a convenient means of accumulating merchant and product rebate, rewards, incentives and like promotional awards from one or more shopping sessions.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0024] These and other features and advantages of the invention are described with reference to the drawings of certain preferred embodiments, which are intended to illustrate and not to limit the invention, and in which:

[0025] FIG. 1 is a schematic drawing representing the methods or channels in which information is exchanged amongst the ShopLive System participants.

[0026] FIG. 2 is a schematic drawing of the implementation model for the ShopLive System.

[0027] FIG. 3 is a schematic diagram for the ShopLive video session system architecture.

[0028] FIG. 4 is a schematic diagram for the ShopLive shopping mission system architecture.

[0029] FIG. 5 is a schematic diagram for the architecture for creating and managing the Shopper profile.

[0030] FIG. 6 is a schematic diagram for the architecture enabling a shopper to interact with ShopLive Assisted Shopping.

[0031] FIG. 7 is a schematic diagram for the ShopLive notification processing system architecture.

[0032] FIG. 8 is schematic diagram for system architecture for a global shopping chart allowing purchases from multiple merchants.

[0033] FIG. 9 is a schematic diagram for the system that manages the purchase gateway.

[0034] FIG. 10 is a schematic diagram of the system for order fulfillment in one ShopLive embodiment, that of a Creations mall.

[0035] FIG. 11 is a schematic diagram of a shopper's transaction gateway for accessing the ShopLive system.

[0036] FIG. 12 is a schematic diagram of the common gateway for managing the information exchanges between the ShopLive system and applications the shopper session.

[0037] FIG. 13 is a schematic diagram for the search engine for malls.

[0038] FIG. 14 is a schematic diagram of the search API for external merchant catalogs.

[0039] FIG. 15 is a schematic diagram of the system to allow a shopper access to merchant's catalogues, images, text and video image banks.

[0040] FIG. 16 is a schematic diagram for a system to external inventory access via API.

[0041] FIG. 17 is a schematic diagram for a purchase fulfillment system.

[0042] FIG. 18 is a schematic diagram of a system to provide shopper profile information to merchants.

[0043] FIG. 19 is a schematic diagram of a system to manage customer relationship services for shoppers, merchants and malls.

[0044] FIG. 20 is a schematic diagram of the ShopLive administration system.

[0045] FIG. 21 is a schematic diagram of the merchant administration system.

[0046] FIG. 22 is a schematic diagram of the mall administration system.

[0047] FIG. 23 is a schematic diagram of the ShopLive Loyalty Program.

[0048] FIG. 24 is a schematic diagram of the ShopLive Auctions system.

[0049] FIG. 25 is a schematic diagram of a system to manage data for the shopper nightly notification system.

[0050] FIG. 26 is a schematic drawing of the implementation model for the ShopLive System within the Creations model.

[0051] FIG. 27 is a schematic drawing of the Creations Camera Layout.

[0052] FIG. 28 is a schematic drawing of the Creations Video Work Station Camera Kiosk.

[0053] FIG. 29 is a schematic drawing of the Live Browser.

## DETAILED DESCRIPTION OF THE INVENTION

### Definitions

[0054] The following phrases and words are used extensively through out. In order to avoid confusion and ensure consistency, the terms are defined below:

[0055] Agent—see SLA

[0056] Creations—A walk-in and Internet based shopping experience. The Creations store or retail location features leased display areas where tenants display merchandise, state of the art video cameras to support Internet video based shopping, video catalogs and a contained warehouse for fulfillment and distribution functions. Walk-in shoppers browse and shop for products using convenient computer tablets to interact with the catalog. Upon checking out and payment, the products are available for pickup. Internet based shoppers use live video technology to shop and arrange for pick-up or delivery of their purchases.

[0057] Merchant—a ShopLive enabled store, retailer or business, which offers goods or services to shoppers.

[0058] Push Data—A merchant or SLA has the ability to send data (web pages or search results) to a shopper during a video session. This action is referred to as pushing data and causes the information that is displayed on the merchant's screen to be also displayed on the shopper's terminal.

[0059] SLA—A ShopLive personal shopper who assists shoppers with their shopping experience through ShopLive video technology. This individual, or an animation representing a person, provides shopping assistance to the shopper via a live video session. These individuals may be referred to as SLA, video agents, SLA agents, Mall agents (video enabled agents representing the shopping malls) or ShopLive Personal Shoppers.

[0060] Video Merchant—A ShopLive merchant who offers the capability to shop using the ShopLive video technology.

[0061] Video Station—A video enabled workstation registered with the ShopLive application. The video station consists of a video camera, computer workstation and specialized application software.

[0062] Virtual Agent—A remote ShopLive assistant who provides personal shopping assistance using a remote computer workstation and video camera. ShopLive video allows agents to provide shopper service through remote home video stations.

### Drawing Symbols

[0063] The following symbols are used within the Data Flow Diagrams. □

[0064] Function or system process. The "internal" keyword denotes an internal process. □

[0065] User who interacts with the ShopLive process. □

[0066] Data base table or collection of data used by the process. ⇒

[0067] Flow of data or information within the application. □

[0068] HTML or Internet pages. □

[0069] Email message sent to or from ShopLive. □ XML document used to transfer information between internal and external processes.

[0070] Shaded are external to the ShopLive application or sub-system. Information is exchanged between these processes.

### Systems Overview

[0071] ShopLive consists of a number of components utilizing the following proprietary methods for data exchange to support information exchanges between the ShopLive components as well as communication with external applications.

[0072] All data exchange with external applications (external merchant catalogs, external inventory, UPS or FEDEX delivery systems) where data transfer is required, use XML. ShopLive data and requests for data are formatted as industry standard XML forms for exchange purposes. ShopLive utilizes system component for encode and decode purposes. Typical XML forms include external product searches, search results, catalog updates and delivery requests.

[0073] Credit Card transactions are handled as XML form using encrypted data and secure browser connections. The

processing service provider dictates the method and format of information to be exchanged. ShopLive conforms to their published protocols.

[0074] Internal notifications are the primary method for shoppers to communicate with the ShopLive personal shoppers, merchants or mall assistants using the ShopLive video technology. The ShopLive application makes extensive use of internal notification messages for both inter and intra component communication. Messages are formatted into standard ShopLive protocols and managed via the ShopLive messaging component. The application uses a series of notification queues for message storage and delivery. Separate queues are maintained for each process requiring messaging capability. Typical message queues include:

[0075] SNQ—System Notification Queue - master messaging queue for all internal messages.

[0076] PNQ—Personal Notification Queue - notification queue created for each shopper session.

[0077] MNQ—Merchant Notification Queue - notification queue for each video merchant. Subordinate queues are created for each video station associated with a merchant location.

[0078] ANQ—Agent Notification Queue - notification queues are created for each ShopLive assistant or mall assistant as they login to the ShopLive application.

[0079] The final method of inter-component communications is events. These are system specific blocks of data used to track the shopping session events that occur during a shopping session. Events provide a standard method of tracking the activities of a shopper during a shopping session. They provide a chronological history of the shopper's activities during a session and include, shopper entered search criteria, record of merchant visits, and requests for assistance, purchases and shopping cart activity.

[0080] The events provide a chronological history of each shopping session and are used by the ShopLive application for data mining purposes, statistical reports or rebuilding the session or shopper's shopping cart in the event the shopper was accidentally disconnected during an active session.

[0081] Data domains for the ShopLive system are segregated into distinct areas or collections of data (referred to as Data Domains or Data Collections). The Data Domains perform the following functions: identify the primary data collections for the ShopLive application, identify and describe the data base tables within each data domain, describe the primary data elements within each table and provide a brief description of the data element and its contents, and identify any business rules or regulations associated with the data elements.

[0082] In many instances the database tables are contained within third party ASP components such as loyalty or banner management applications. The ShopLive design interfaces and the data collection are referenced, rather than individual elements. For instance, loyalty programs exchange a shopper ID number as well as shopper profile information during registration and validation processes. When the loyalty program is selected the data elements, comprising the profile data, is passed to the loyalty application.

[0083] Shopper Data Domain contains data about each individual ShopLive shopper ranging from shopper registration through brand preferences to shipping preferences.

[0084] Typically this information is collected through shopper registration, surveys and on-going execution of shopping sessions. The types of data compiled is listed below:

[0085] 1. The shopper profile contains name address and pertinent personal data.

[0086] 2. The shopper master file contains a master list of all registered ShopLive shoppers for login and validation purposes.

[0087] 3. The address contains home, mailing and shipping information.

[0088] 4. The family/group file contains data about family and group members.

[0089] 5. The personal calendar contains shopper specific important dates.

[0090] 6. The gift registry contains data about wish lists for self and family members.

[0091] 7. The personal folder comprises two distinct sections, products and merchant sites. The personal folder holds product specific information, which the shopper has saved to their own personal folder either directly from a merchant catalog or from their shopping cart. The second section holds a list of merchant websites or links that the shopper wishes to remember. This area is a ShopLive specific "My Favorites".

[0092] 8. Preferences file contain a shopper's brand and purchase preferences. The merchants and SLAs use this data during shopping sessions, as well as during creation of shopping missions. Merchants also use this data for targeting advertising, during shopping sessions.

[0093] 9. The financial folder contains encrypted credit card and personal financial information for the shopper.

[0094] 10. The interest's file contains shopper interests and habits data.

[0095] 11. The shopping history file contains shopping history data based on shopper's previous shopping sessions including purchases.

[0096] 12. The shopper's PNQ contains system notifications, reminders and messages for use when a shopping session is activated. This is persistent notification data, which is used to compile a transient session PNQ for each shopper.

[0097] 13. The purchase history file contains pending purchase orders for purchases completed by each shopper as well as actual purchases that the shopper has completed in previous sessions.

[0098] The mall data domain contains data about the various mall properties, content, maps and merchant directories. It contains all mall relevant data required by the ShopLive application, merchants and shoppers, including the mall directory with mall profile, location and corporate data, maps with mall layout and graphical maps with images used to create mall maps, store directory with lists of active merchants linked by category and mall locations and active

merchant agents, video station registry with list of active video stations and associated physical locations, mall agent's base notification queue ANQ that contains system notifications, reminders and messages for use when mall customer relations management (CRM) session is activated. This is persistent notification data that is used to compile a session ANQ for each mall agent.

[0099] Merchant Data Domain contains data about the various ShopLive merchants, catalogs, video stations, location, retail content and merchant profile information. It contains all merchant relevant data required by the ShopLive application, merchants and shoppers. The data sets include profiles that contains data about retail merchant and their location(s), catalogs which contains merchant catalog items, video catalog which contains videos associated with catalogs or website that may contain links to supplier provided videos or infomercials, store specific inventory information, data about sales initiated from ShopLive, information about pending and completed purchase orders, corporate and website profile for each merchant along with merchant WebPages hosted by ShopLive or on retailer web site, merchant base notification queue (MNQ) that contains system notifications, reminders and messages for use during merchant login (this is persistent notification data that is used to compile a session MNQ for each merchant video station), shopper purchase data for use when compiling shopper order and address and shipping information including preferred shipper.

[0100] The shopping system data domain contains all the temporary data related system data maintained by ShopLive during active shopping sessions. It contains detailed logs of shopping sessions used by the system to compile consumer and merchant marketing statistics. Shopping session logs are used by the application to update shopper profiles, shopping activity and trends. This data is used primarily for data mining activities prior to being removed from the ShopLive data archives. This temporary data consists of shopping session history, agent activity and logs of session events, shopping mission data that can be saved for later use, and active shopping cart and previous shopping cart for each shopper that is saved in the event of disconnection to allow the shopper reconnection to his last active session and recover his shopping cart.

[0101] The systems data domain contains all system control information required by the ShopLive application for execution purposes. These tables are primarily static information used by the application for system and control purposes. Typical examples include tables of state names, cities, business rules, state tax tables, application business rules and other application data required by the ShopLive application during regular processing. The systems data domain includes:

[0102] 1. Video Stations containing the list of registered video stations and the links to the associated merchants and malls including IP address information.

[0103] 2. ANQ having a SLA agent's base notification queue that contains system notifications, reminders and messages for use when ShopLive agent CRM session is activated. This is persistent notification data that is used to compile a session ANQ for each SLA agent.

[0104] 3. Agents containing a list of registered shopper service agents for ShopLive, malls and merchant video stations.

[0105] 4. Product category containing lists of product categories, which are used for merchant classification during searches.

[0106] 5. SLA Agents contains active list of shopper service agents and security information for use by the CRM component. It contains all relevant information about the SLA.

[0107] 6. Notification queues contain SLA agent, merchant, mall agent and shopper notifications for use by the ShopLive application. ShopLive also reserves a common system notification queue used to handle all, internal messages.

[0108] 7. Activity history contains statistical information on shopper visits and activity by video station, merchant and shopping malls. It is used during the production of traffic and activity reports for ShopLive, mall administrators and individual merchants.

[0109] 8. Help files contains ShopLive system help data including FAQ, which are used to provide online help to shoppers, merchants, SLAs and ShopLive merchants using the ShopLive application.

[0110] 9. Group statistics contains monthly, consumer group, merchant, mall and other statistical information for traffic and group demographic reports. This data is compiled on a group level for marketing and trend analysis.

[0111] 10. XML validation rules contain decode rules for XML inbound and outbound messages. The system components use these rules for interpreting or creating XML documents for inter-system communication.

[0112] 11. Error logs contain any system errors along with their severity and appropriate escalation business rules.

[0113] 12. Shopper comments contain shopper complaints data, current status and complaint resolution information.

[0114] ShopLive creates a new shopping experience yet presents the experience in a format that is comfortable to the shopper because it mimics his prior shopping experiences. The system to achieve that result has several components that constitute the ShopLive system. Operating on this or comparable systems is the ShopLive methodology as summarized below and which is explained in detail by reference to the drawings and detailed description of the preferred embodiment.

[0115] ShopLive Video provides the ability to provide real-time interactive video shopping experiences and provides interaction between a registered ShopLive shopper and a ShopLive merchant or ShopLive Assistant. Video enabled interactions occur between a shopper and a merchant but the application must also accommodate live voice chat and interactive text chat during the shopping experience. Using the Internet the shopper is able to interact with a live salesperson using the Internet and ShopLive video technology. This component also supports video conferencing to allow for group shopping or live video seminars. In the ShopLive videoconference scenario, the system provides the ability for a group of viewers to view the same video broadcast (live) from a ShopLive merchant or from the ShopLive Assistant. The shoppers effectively watch a live broadcast from the store video station.

[0116] Shopping Mission defines a shopping mission and sets measurable parameters, which expedite the shopping mission using pre-entered objectives or mission criteria. The shopping mission parameters are accessed interactively by a ShopLive merchant during a shopping session and used to enhance the shopping and selling experience.

[0117] Shopper profile provides the ability to register a shopper and define a shopper profile that can be used by ShopLive to streamline the shopping experience for registered shoppers. The shopper's profile stores preference, shopping history and other consumer behavioral data. ShopLive merchants are able to access the shopper profile information interactively during a shopping session to determine shopper preferences and allow them to serve the shopper better.

[0118] ShopLive assisted shopping provides the ability for a shopper to interact with a SL A to assist them with his shopping mission. The SLA is able to perform product and merchant searches on behalf of the shopper; answer questions, and connects shoppers to video merchants, assist with mission definition and other session functions as required. They act as personal shopping agents with the video shopper.

[0119] ShopLive shopping cart allows the shopper to save items to a common shopping cart from multiple merchants. The component allows the shopper to purchase items from multiple retailers or locations rather than requiring visits to each retailer. The Shopping cart is tightly integrated with the purchase gateway.

[0120] Purchase Gateway provides the ability for shoppers to select and purchase items from various merchants using a common ShopLive shopping cart. The ShopLive cart allows shoppers to buy products previously selected during the mission from their ShopLive shopping cart. The purchase gateway manages the purchase transactions from merchant inventory queries through credit card processing. The gateway handles the sales transaction and notification to the merchants.

[0121] Transaction Gateway (shopping session) is created when a shopper sign's into the ShopLive transaction gateway via the Internet, through a kiosk or by interacting with a Creation's touch pad, wireless device or like portal. The ShopLive application creates a unique shopping session for that specific shopper. This session serves as the transaction gateway through which the shopper completes his shopping experience.

[0122] The following components support the implementation of the ShopLive application. These components manage the data or accommodate access to the information provided by these components.

[0123] Session gateway framework is a common gateway to exchange information between the ShopLive core application components and the merchants using the application. The session gateway supports the interaction between the components operating at the mall or merchant level and the ShopLive transaction gateway shopper session running on the ShopLive servers.

[0124] A search engine provides the ability for a shopper or SLA to search for malls, stores or products through a

ShopLive search engine. The search engine accesses both ShopLive internal and external databases for this information.

[0125] Catalog access provides access to catalog information on both retail and a chain level for the shopper. The application access catalog data directly for the shopper or provides a common interface to the catalog information stored in external databases. This supports catalog content as text, images or video images as needed.

[0126] Inventory access provides the ability to query catalog inventory availability at a store location level. Inventory that is managed by the ShopLive application is accessible immediately while external inventory system data is provided through a common interface. A common method of exchanging inventory data is documented and supported by participants in the ShopLive application using inventory API and XML forms.

[0127] Purchase fulfillment provides the ability to confirm purchases on behalf of a ShopLive shopper, complete the purchase cycle and handle order fulfillment including pick-up, shipping and handling based on shopper preferences. Purchase fulfillment is handled within ShopLive through an interface to an external purchase fulfillment application or through an interface with a merchant's application for that process.

[0128] Marketing reports and shopper profiling provides shopper profile information to registered merchants or merchants requiring profile information. Trend analysis reports by demographic groups are available for data-mining exercises by merchants and malls for market analysis reports. Merchants and malls are able to access and print reports using the ShopLive reporting functions.

[0129] Data mining of consumer purchase data (subject to consumer privacy regulations) is available for statistical purposes and other data mining exercises.

[0130] Loyalty program sponsored by the Mall, merchant or merchant or integrated into the ShopLive session or profile by reference to the ShopLive shoppers via registration code. The loyalty program application may be ShopLive implemented application or an external application.

[0131] Application Interfaces, interface with third party products and other external applications. ShopLive system users have access to an Internet email application that processes sending and receipt of emails. The ShopLive application generates and sends emails to various system users. Typical emails include order confirmation, marketing notices, merchant traffic reports or shopper purchase confirmation.

[0132] ShopLive supports auctions by various merchants. Video conferencing software allows video auctions to be scheduled and take place within the ShopLive environment. The merchants handle the recording of purchases and fulfillment of orders. ShopLive acts as the portal and network to conduct the auction.

#### DESCRIPTION OF PREFERRED EMBODIMENT OF THE INVENTION

[0133] Referring to FIG. 1, the diagram is a pictorial representation of the interactions between the various groups within the ShopLive application. A Shopper uses the Shop-

Live Browser 100, a downloadable plug-in to complete an Internet based video enabled shopping experience. Shopper access portal 100 also includes kiosks or computer touch pads within ShopLive malls and merchants' facilities and any network access device.

[0134] Using the ShopLive Browser 100 a shopper may access SLA gateway 102 that connects the shopper to a SLA who assists shopper with their shopping experience using the ShopLive video technology.

[0135] Using the ShopLive Browser as a portal 100 a Shopper can also access a ShopLive mall 104 partner that is a collection of video enabled merchants or stores 106 in a physical location. Shoppers can either visit the mall merchants directly or use the Internet or like communication network to browse mall directory contents or interact with video merchants. The communications link may also be wireless.

[0136] Using the ShopLive Browser the shopper may also access a ShopLive merchant 106 directly or via other access points including a SLA gateway 102 and a ShopLive mall 104. The ShopLive Merchant site 106 is a video enabled merchant who utilizes ShopLive video technology to interact with shoppers. Video merchants feature ShopLive video technology to allow consumers to view store items or interact directly with retail staff members via the in-store video stations. Consumers may also enter the store directly and purchase through a sales representative.

[0137] Supporting the communications link ShopLive components 102, 104 and 106 is the ShopLive Internet Application 108 that is a collection of software and hardware that supports the interaction of the ShopLive participants using the Internet and ShopLive video technology that is further discussed.

[0138] Figure 2, presents the way that the system is implemented in the preferred embodiment. This Implementation Model is a pictorial representation of the proposed implementation of the ShopLive application in the typical merchant application. The model describes the ShopLive application in terms of functionality, services availability and information collections and from the perspective of the services provided by ShopLive Internet 202, ShopLive Malls 204 and ShopLive Merchants 206 to the Internet shopper which are clustered together to provide application functionality. Differing implementation models may be appropriate for specialized applications of the technology, however the underlying approach to clustering components is the basis for each implementation.

[0139] ShopLive Internet 202 functional group is the heart of the ShopLive application. All application transactions and information are controlled from this functional area. Shoppers, ShopLive Administrators and ShopLive CRM functions are provided services and information from this group of components. The individual components and their related information are depicted as functional areas in the diagram and relate back to the primary and secondary components as described below. The session gateway framework component manages communication and exchange of information with the other functional areas. The arrows within the diagrams depict information exchange. ShopLive Mall 204 functional area describes the services and functions provided by a typical ShopLive mall within the application. ShopLive

malls interact with ShopLive merchants and shoppers via the session gateway framework component. Typical services or functions available to the malls are access to ShopLive search engines to access merchant directory information and to provide provisions and access to SLA functions by the mall assistants to access mall specific marketing and traffic information reports and to access mall and merchant administrative functions reference in the mall administration system, see FIG. 22.

[0140] ShopLive Merchant 206 functional area describes the services and functions provided by a typical ShopLive Merchant via the ShopLive application. Merchants offer a greater set of functions and services due to their interactions with video shoppers. Merchants communicate with ShopLive Assistants, ShopLive Internet, ShopLive Malls and video shoppers via the session gateway framework. Typical services or functions available to merchants are access to ShopLive search engines, catalog management services, inventory management services, live video shopping functions, catalog administration services, video catalog administration services, inventory management services, traffic and marketing reports, sales reports, customer order administration functions, and the ability to query shopper profile and habits during a live session, query shopper mission, and to contact shoppers (appointment management and calendar functions) and to provide access to external merchant systems (via XML or custom interfaces). The components to support these functions are described below.

[0141] ShopLive Video provides real-time interactive video shopping experiences and provides interaction between a registered ShopLive shopper and a ShopLive merchant or SLA. Primarily video enabled interactions occur between a shopper and a merchant. The application also accommodates live voice chat and interactive text chat during the shopping experience. Using the Internet the shopper is able to interact with a live salesperson using the Internet and ShopLive video technology. This component also supports video conferencing to allow for group shopping or live video seminars. In the videoconference scenario for ShopLive, the application provides the ability for a group of viewers to view the same video broadcast (live) from a ShopLive merchant or from the ShopLive Assistant. The shoppers are effectively watching a live broadcast from the store video station.

[0142] The shopping mission sets measurable parameters to expedite the shopping mission using pre-entered objectives or mission criteria. The shopping mission parameters are accessed interactively by a ShopLive merchant (during a shopping session) and are used to enhance the shopping and selling experience.

[0143] The Shopper Profile registers a shopper and defines a shopper profile that is used by ShopLive to streamline the shopping experience for registered shoppers. The shopper's profile stores preference, shopping history and other consumer behavioral data. ShopLive merchants access the shopper profile information interactively during a shopping session to determine shopper preferences to allow them to serve the customer better.

[0144] The ShopLive Assisted Shopping application provides the ability for a shopper to interact with a SLA to assist them with their shopping mission. The SLA is able to perform product and merchant searches on behalf of the

shopper; answer questions, and connects shoppers to video merchants, assist with mission definition and other session functions as required. They act as personal shopping agents with the video shopper. The ShopLive shopping cart allows the shopper to save items to a common shopping cart from multiple merchants. The component allows the shopper to purchase items from multiple retailers or locations rather than requiring visits to each retailer. The shopping cart is tightly integrated with the purchase gateway.

[0145] The purchase gateway application provides the ability for shoppers to select and purchase items from various merchants using a common ShopLive shopping cart. The ShopLive cart allows shoppers to buy products (previously selected during the mission) from their ShopLive shopping cart. The purchase gateway manages the purchase transactions from merchant inventory queries through credit card processing. The gateway handles the sales transaction and notification to the merchants.

[0146] The Transaction Gateway (shopping session) is created when a shopper signs into the ShopLive transaction gateway via the Internet, through a kiosk or by interacting with a

[0147] Creation's touch pad. The ShopLive application creates a unique shopping session for that specific shopper. This session serves as the transaction gateway through which the shopper completes their shopping experience.

[0148] The above functions are supported by the following components. The Session Gateway Framework application uses a common gateway to exchange information between the ShopLive application components and the merchants using the application. The Session Gateway supports the interaction between the components operating at the mall or merchant level and the ShopLive transaction gateway (shopper session) running on the ShopLive servers.

[0149] The search engine application provides the ability for a shopper or SLA to search for malls, stores or products through a ShopLive search engine. The search engine accesses both ShopLive internal and external databases for this information.

[0150] The catalog access application provides access to catalog information on both retail and a chain level for the shopper. The application access catalog data directly for the shopper or provides a common interface to the catalog information stored in external databases (Catalog API). This component supports catalog content as text, images or video images as needed.

[0151] The inventory access application provides the ability to query catalog inventory availability at a store location level. Inventory that is managed by the ShopLive application is accessible immediately while external inventory system data is provided through a common interface. A method of exchanging inventory data is to document and support it by participants in the ShopLive application (Inventory API and XML forms).

[0152] The Purchase Fulfillment application provides the ability to confirm purchases on behalf of a ShopLive shopper, complete the purchase cycle and handle order fulfillment including pick-up, shipping and handling based on shopper preferences. Purchase fulfillment may be handled within ShopLive, through an interface to an external pur-

chase fulfillment application or through an interface with a merchant's application for that process.

[0153] The marketing reports and shopper profiling application provides shopper profile information to registered merchants or vendors requiring profile information. Trend analysis reports by demographic groups are available for data-mining exercises by merchants and malls and for market analysis reports. Merchants and malls are able to access and print reports using the ShopLive reporting functions.

[0154] Data Mining of consumer purchase data (subject to consumer privacy regulations) is available for statistical purposes and other data mining exercises.

[0155] The loyalty program application at the mall or shopper level interfaces to loyalty programs and identify ShopLive shoppers via registration numbers. The loyalty program application may be ShopLive implemented application or an external application.

[0156] Referring to FIG. 3, the ShopLive video component 300 comprises a downloadable Java plug-in referred to as the ShopLive Browser within this document that provides video functions as well as the supporting software components of functions to support the video session. Using the Internet the shopper is able to interact with a live salesperson using the Internet and ShopLive video technology. This component also supports video conferencing to allow for group shopping or live video seminars.

[0157] This ShopLive Browser gives ShopLive the ability to provide real-time interactive video shopping experiences and provide interaction between a registered ShopLive shopper and a ShopLive merchant or SLA. The ShopLive Browser supports the live video sessions between the shopper, the SLAs and the video enabled merchants. Video enabled interactions occur between a shopper and a merchant, but the application also accommodates live voice chat and interactive text chat during the shopping experience.

[0158] Activate video session 302 is an internal process that initializes a video session and completes the setup of system files. Tasks managed by this function include verify location and version of ShopLive browser, validate system data, initiates download of ShopLive browser, establish session parameters and communicates with active shopper session through session events.

[0159] Disconnect video Session 304 manages the automatic closure of video sessions. The function monitors the connection and once ended, cleans up any temporary files, system memory and updates video station activity table. The function automatically pings video station IP address to monitor connection status. The interval is managed through system parameters.

[0160] Maintain video stations 306 allow the system administrator to register video stations, manage video station data IP addresses, location and type of equipment and associate video stations with storefronts and merchants.

[0161] Video station search 308 allows shoppers to search for active video stations and their associated merchants within the ShopLive merchant directories.

[0162] Video camera manipulation function 310 provides the ability for a shopper to manipulate a video station camera

via the Internet. Through this API control the shopper is able to pan, tilt and zoom capability using vertical or horizontal controls. Video stations have the capability to determine the product code or product SKU they are viewing using bar code readers and like product identifiers. In the alternative, product selection, during video shopping sessions, may be from either the shopper or merchant.

[0163] Login Video Station 312 allows the SLA or video merchant to login into their individual video station and activate connections with the ShopLive application. Video stations have two states, inactive when the video station has been disconnected and active status, which is triggered by agent login at the video station. Once connected to the network the video station broadcasts web camera images.

[0164] Maintain video sessions 314 allow the ShopLive system administrator to monitor active video sessions for control purposes. This feature is used for policing of transmissions or as training aids for new SLA agents. This feature is also extended to merchants to assist them when training new staff in customer services.

[0165] Transfer Video Session 316 is used by the SLA to transfer a shopper to a video merchant session. Transfers are automated through system notifications.

[0166] Manage video conference 318 provides support for the scheduling and delivery of video broadcasts and commercials including support for video-conferencing sessions. During a ShopLive videoconference, the application provides the ability for a group of viewers to be able to view the same video broadcast live from a ShopLive merchant or from the ShopLive Assistant. The shoppers are effectively watching a live broadcast from the store video station. The function allows the merchant to schedule videoconferences, manage conference registration, manage the videoconference notifications, alert registrants via system notifications and manage session broadcasts.

[0167] The SLA agent can use the videoconference capability to deliver training sessions for new shoppers or address Shopper Relation issues.

[0168] ShopLive video rules to operate the above described system of FIG. 3 are encoded in software to perform the following functions:

[0169] 1. All video station cameras are by default in video conference mode providing for viewing by multiple shoppers,

[0170] 2. The shopper determines whether their video session with a merchant was private or public,

[0171] 3. Occupied cameras shows as busy during a private video session,

[0172] 4. Scheduling of video sessions is handled through the system notification process and the waiting shoppers informed automatically of wait times,

[0173] 5. The initial shopper has the ability to manipulate the video camera. Other participants are able to watch but not interfere with camera operation.

[0174] 6. The merchant has the ability to control camera[s] during a session. The merchant can lock camera controls from the video station workstation.

[0175] Each ShopLive component accesses many tables within the ShopLive application. The diagrams displays only some of the tables or table groupings accessed by the application component functions and describe the nature of information collected or accessed. Detailed explanations are only provided to clarify the function processing depicted by the diagrams. The registry tables within 320 for Malls, Merchants and Video Stations are used by the application to track active participants with ShopLive. The search engines use these tables to locate malls, merchants and active video stations for shoppers, merchants and SLAs during a typical shopping session. As new merchants or video stations are added or updated within ShopLive by the ShopLive administrator, these tables are updated in real-time for use by application components.

[0176] The notification queue tables Mall ANQ notifications, Merchant Notification Queues (MNO) and Personal Notification Queues (PNO) within 320 are used extensively during ShopLive video processing for controlling sessions parameters and seamless transfer of video sessions between participants.

[0177] Referring to FIG. 4, the Shopping Mission 400 provides the ability for a shopper or SLA to pre-define a shopping mission and set measurable parameters that expedite the shopping mission using the pre-entered objectives or mission criteria determined by the shopper during registration and saved in their shopper profile. The shopper profile can be updated based upon active shopping missions, which can be compared and stored by the shopper as saved missions for future use. This interactive process of defining shopper profile, creating active shopper missions and saved missions, provides both the shopper and retailer with behavioral data on shopper's shopping and purchasing behavior.

[0178] The Shopping Mission function accesses multiple application tables but primarily concentrates on the shopper profile and shopping mission data for processing. The shopper profile 430 in this context is the collection of tables that ShopLive maintains to describe each individual shopper. The shopper profile data is read and updated by the various functions and used to create a new mission, determine shopper preferences, access shopper history and shopper profile data used to create a new mission or enhance an existing mission. The active mission is created each time a shopper initiates a new ShopLive session and built using existing shopper profile and mission data. Once a mission is completed it is saved for future use by the shopper or the system for profiling purposes.

[0179] The shopping mission parameters can be accessed interactively by a ShopLive merchant (during a shopping session) or the ShopLive SLA and used to enhance the shopping and selling experience.

[0180] The shopping session is created automatically when the shopper signs into a ShopLive session. In the event that a shopper decides to create their own shopping mission or use a previously defined shopping mission, the system created shopping missions is over-written. The ShopLive system makes extensive use of the shopping mission during searches and merchant interactions to simplify and expedite the shopping experience for the shopper.

[0181] The shopping mission diagram 400 is a pictorial overview of the application functions used to manage the Shopping Mission information. These functions are described below.

[0182] Shopper login 402 manages the sign-in process of a registered ShopLive shopper. Unregistered shoppers are able to shop as an anonymous shopper or provided the opportunity to register. This function validates the shopper entered ID, name or email address against the registered shopper database. The registration is also used to determine if the registered version of the ShopLive video browser plug-in is a current version.

[0183] Initiate session 404 manages the creation of a ShopLive shopping session, loading of shopper preferences, creation of system files such as shopping cart, loading personal notification queue (PNQ) and establishing contact with the ShopLive master databases. These processes occur in the background as the ShopLive session is displayed on the shopper's terminal along with current notifications. Create new mission 406 function automatically creates a new or active shopping mission for the shopper when they start a shopping session. It updates the active shopping mission with key shopper data including brand and store preferences.

[0184] Define shopping mission 408 allows the shopper to define his own shopping mission based on his own criteria. The criteria are pre-filled with shopper's brand and store preferences where possible to reduce data entry time. The shopper is able to use previously entered gift registry and special occasion information from their profile to complete the fields required.

[0185] Update mission 410 allows the shopper to update the active shopping mission with additional criteria or parameters. The shopping mission can be updated at any time during a shopping session through the use of the shopper's ShopLive menu.

[0186] View previous mission 412 displays a list of active shopping missions defined for that shopper along with a brief description of the mission. The shopper may view any of the shopping missions that they have saved to their ShopLive portfolio.

[0187] Recall previous mission 414 allows the shopper to select a previously saved mission and resume shopping using that mission.

[0188] Update shopper's mission 416 allows the SLA to view and update a shopper's mission during a video session for a shopper. The function is available to SLAs once they have been requested to provide assistance to shopper and a video session has been established.

[0189] Query Shopper's Mission 418 provides the ability for the merchant to query the shopper's profile automatically when a shopper visits the merchant and then displays the shopper's mission on the retailer's screen. The query process is automatically triggered when a merchant accepts an incoming call from a video shopper.

[0190] The shopper mission business rules to operate the above-described system of FIG. 4 are encoded in software to perform the following functions.

[0191] The Search API accesses the Shopper's Mission to assist with the search. When a shopper selects the search catalog function the search API accesses the active shopper's mission and pre-fills the search form with the data from the mission.

[0192] The shopping mission travels with the shopper as they move from store to store and allow the merchant to determine their shopping objective without the shopper having to explain. The merchant is able to view the shopper's mission and identify the shopper as they enter the store through ShopLive. The merchant is able to personalize the shopping experience and provide a better level of service.

[0193] A shopping mission is created for each shopper within ShopLive. For walk-in shoppers the mission is used primarily for trend analysis during post-session evaluation. The mission may be viewed by Creation's shopping assistants during a shopping session or at the termination of a session to determine which store fronts the shopper visited.

[0194] Referring to FIG. 5, ShopLive provides the ability to register a shopper and define a shopper profile that can then be used by ShopLive to streamline the shopping experience for registered shoppers. The shopper's profile 522 serves as a central secure repository of shopper information including store preferences, shopping history and other consumer behavioral data. ShopLive merchants are able to access specific parts of the shopper profile information interactively during a shopping session to determine shopper preferences and allow them to serve the shopper better.

[0195] The data for each shopper is gathered during initial registration processing and saved in the shoppers profile, through on-going shopper interactions within the ShopLive application. Additional behavioral information is gathered during shopping sessions and added to the shopper's profile. Data is segregated into functional areas for collection purposes. The shopper profile 522 in this context is the collection of tables that ShopLive maintains to describe each individual shopper. The shopper profile data is read and updated by the various functions and used to create a new mission, determine shopper preferences, access shopper history and shopper profile data used to create a new mission or enhance an existing mission. ShopLive accesses external consumer data to augment the shopper profile data. Types of data collected and integrated into ShopLive include shopper credit, consumer demographic behavior, purchase data and other relevant shopper data. The sub-system to manage the shopper profile 500 consists of the following functional components, which are described below.

[0196] The initial registration 502 records initial shopper demographic information and assigns each shopper a unique identification number as well as providing access via their email address. Relevant data is captured during shopper registration. The function allows shoppers to change password and information as required during subsequent sessions.

[0197] Shoppers are assigned a token, card or unique tag, which identifies then as a ShopLive shopper during their shopping session. The token is used by the ShopLive application to identify the shopper at kiosks or tablets during their shopping session.

[0198] Update and shipping data function 504 is used by the application to record and update shopper address and shipping preference information. The shopper may update information at any time during the current or subsequent sessions. The address information is used during purchase and shipping processes to reduce the amount of information that the shopper needs to enter to complete their transactions.

[0199] The update brand preferences function 506 allows the shopper to register and update their brand and store preferences by product categories. Shopping missions and search engines, to streamline the search processes by returning a shopper's preferred brands or merchants in the search results, utilize the brand preference information.

[0200] The manage credit card and financial information function 508 allows shoppers to record credit card and other financial information for use during shopping sessions. The data is encrypted and stored on a secure server to ensure security. The system tracks shopper purchases and provides financial reports for the shoppers detailing ShopLive purchases against specific credit cards.

[0201] The data encryption services 510 are responsible for the encryption and decryption of financial information being stored on the ShopLive secure financial server. All purchase transactions and any access to a shopper's financial data occur through this gateway.

[0202] The update shopper demographic and summary module 512 allows the shopper to add or change personal demographic information maintained within the ShopLive application. The module also maintains a summary of ShopLive activity including purchases and visit history within the ShopLive world. This data may be viewed or used for reporting purposes.

[0203] The update family group data 514 provides the ability for a shopper to maintain or be a member of various shopping groups. Through this function the shopper can manage their groups and group relationships. Typically a shopper uses this module to identify their family members and core information about them such as names, birth dates and relationship. Additional data can be defined for these members within the gift registry module.

[0204] The update wish list and gift registry module 516 allows shoppers to maintain wish lists or various gift registries. The following functions are available within this sub-system; maintain wish list for self or family group member, add, update or delete items from the wish lists, send wish lists to other ShopLive members within your family group, create and maintain gift registries for weddings or special holidays, add, update or delete items from owned gift registry share gift registry list with other ShopLive members via email.

[0205] The update special dates and calendar function 518 allows the shopper to record special dates within a personal calendar along with reminders for special occasions. The shopper can record dates, set reminders and have themselves automatically notified through the Personal Notification system of these dates.

[0206] The manage personal folder function 520 allows the shopper to view and maintain their personal folder information at any time they are logged into ShopLive. The personal folder provides a convenient notebook where the shopper can maintain a list of products and merchants of interest to themselves (bookmarks). The shopper may review, update or remove items from their personal folder at any time during a shopping session. The folder also allows shoppers to maintain notes for each item in their personal folder.

[0207] Referring to FIG. 6, the ShopLive assisted shopping application 600 provides the ability for a Shopper to

interact with a SLA to assist them with their shopping mission. The SLA is able to perform product and merchant searches on behalf of the shopper; answer questions, and connects shoppers with video merchants, assist with mission definition and other session functions as required. They act as personal shopping agents with the video shopper.

[0208] The contact ShopLive agent function 602 allows the shopper or merchant to contact the SLA for personal assistance. The function automatically creates a system notification request SNQ, which is routed to the next available SLA.

[0209] Process notifications 616 and SNQ 608 functions manages the matching and distribution of notification messages to the ShopLive users from the other system users. Notifications are automatically routed through a series of notification queues to the recipients. Some notifications result in messages whereas other automatically triggers actions by the active shopper session.

[0210] The ShopLive Assistant can access the shopper profile, merchant directory and merchant catalog on behalf of the shopper to assist them with their shopping mission. In this context table 630 is the collection of tables that the SLA accesses to support each individual shopper. The Shopper Profile data is read by the various functions is the shopping mission to determine shopper preferences, access shopper history and shopper profile data used to create or update the new mission or enhance an existing mission.

[0211] The ShopLive session 612 manages the transmission of voice and video between the shopper and either the merchant or the SLA.

[0212] The manage shopper searches function 626 provides search capability to the SLA who can perform searches on behalf of the shopper. The search results can be pushed to the shopper session for display and navigation purposes. The SLA can also push merchant URL or product results to the Shopper's active session.

[0213] The update shopper mission 628 provides the capability for the SLA to manage the shopper's mission on their behalf. A shopping mission is automatically created for a shopper and travels with them during their shopping session. The mission is utilized by the ShopLive application to streamline the shopping session and streamline product searches and provide information on the shopper's objectives to the merchants or SLA.

[0214] The query shopper profile function 632 allows the SLA to query the shopper's profile to better assist them. The SLA can use key shopper preferences and profile data to build the shopper's mission.

[0215] The review shopping session function 624 allows the SLA to review the shopper's shopping session event log and determine what activities the shopper has participated in during the current session. With this information the SLA can better assist the shopper.

[0216] The contact merchant function 622 allows the SLA to contact a merchant on behalf of a shopper, determine answers to shopper questions and arrange for appointments on behalf of the shopper.

[0217] The transfer video session 634 allows the SLA to transfer a shopper video session to a video merchant. The

transfer is initiated through the SNQ and built in video browser plug-in messaging functionality.

[0218] Referring to FIG. 7, the process notifications function 700 collects SNQ, ANG, PNQ and MNQ data in file 730 from multiple inputs including the contact SLA function 602; contact merchant function 622 and the transfer video session function 634. This internal ShopLive function 700 manages the matching and distribution of notification messages to the ShopLive users from the other system users or system processes. Each notification message contains embedded sender and recipient information as well as notification detail. An internal process 616, processes the message and forwards it to the correct recipient based on the embedded address data. Multiple instances of the notification processing software execute simultaneously. The recipients include the shopper portal 100, SLA gateway 102 and the merchant gateway 106. The shopper portal 100 initiates a ShopLive video session 612 and connects the SLA gateway 102 and merchant gateway 106 to place the shopper and merchant in communication.

[0219] Notifications are automatically routed through a series of notification queues to the intended recipients. Some notifications result in user messages whereas others automatically trigger actions by the active shopper session.

[0220] Referring to FIG. 8, ShopLive shopping cart 800 supports the concept of a global shopping cart for their shopper's convenience. It allows the shopper to purchase items from multiple retailers or locations rather than requiring purchases at each merchant location when leaving the merchant site. The Shopping cart is tightly integrated with the purchase gateway. Shoppers have the added convenience of being able to initiate the purchase at any time during their shopping session.

[0221] The ShopLive shopping cart is a collection of items (products or services) that the shopper is interested in purchasing. In this context 830 represents the data that the shopper has chosen to add to the shopping cart selected from merchant catalog or shopper's own personal folder. Each shopping cart activity is recorded in the active shopping mission. Through this function shoppers can also save items including merchant profile to their personal folder.

[0222] The ShopLive application maintains a copy of the active shopping cart for each shopper during each shopping session. In the event that a shopper is disconnected from the ShopLive application due to a power outage or other event, their current shopping cart is saved for recovery purposes. The shopper is queried upon a subsequent login if they wish to resume shopping with their previous instance of their shopping cart.

[0223] The created shopping cart function 802 automatically creates an instance of a : shopping cart for the shopper. The function is triggered when the session is activated as the result of a shopper logging into the ShopLive application as a registered shopper or as an anonymous shopper.

[0224] The rebuild shopping cart function 804 manages the rebuilding of the shopper's shopping cart from the last session. In order to manage the rebuilding of a the shopping cart/shopping session ShopLive accesses a field in the shopper profile holding the last session id as well as a session status flag. When a shopper logs in to the process it retrieves these values, queries the shopper if they wish to

resume their last session (if not completed correctly) or wishes to resume shopping with their last instance of their shopping cart. Based on their response the function can use the session id to get correct session log and rebuild the last instance of the shopping cart.

[0225] The add products to shopping cart function 806 allows the shopper to add products to their shopping cart. The process adds the highlighted product from the shopping session catalog or search results and adds this information to the active shopping cart.

[0226] The accept/reject product from merchant function 808 allows the shopper to add or decline a product that a merchant has pushed to them during the video shopping session. The shopper controls this process to avoid potential abuse by the merchant.

[0227] The view products in cart function 810 allow the shopper to view the products they have saved to his shopping cart during the shopping session.

[0228] The add products from personal folder function 812 allows the shopper to move products they have previously saved to their personal folder to their shopping cart. Additionally they may also save products from their shopping carts to their personal folder for later use.

[0229] The push products to shopper 814 is used by the merchant to push items to the shopper during a video session. The product details are displayed on the shopper's terminal and they can choose to add the product to their cart if desired.

[0230] The delete products from cart function 816 allows the shopper to delete or drop products from their shopping cart. The shopper checks the product(s) they wish to delete and then they are removed from the shopping cart.

[0231] In the Creations implementation, the shopping cart business rule provides that each shopper has access to personal shopping carts during their shopping session. Creations shoppers access their shopping carts via the creations kiosks or tablets located throughout the retail premises via their token. Full access is available for any of the functions to control the content of their shopping carts. Walk-in shoppers to a fixed site are restricted to those merchants and product selection available within the specific property.

[0232] Referring to FIG. 9, the Purchase Gateway 900 is the sub-system that manages the purchase transactions initiated by the shopper for the products they have selected from their shopping cart. The purchase gateway manages the purchase transactions from merchant inventory queries through credit card processing. The gateway also handles the sales transaction and purchase notification to the merchants once the sale has been completed.

[0233] There are alternative methods to process purchase transactions on behalf of the shopper. In business model#1, ShopLive purchases items on behalf of the shopper from the merchants (shopper pays ShopLive who acts as a consolidator for the shopper). In business model#2 the shopper purchases directly from the merchant through ShopLive. In the latter case ShopLive consolidates the order for each merchant and facilitates the purchase.

[0234] The purchase gateway accesses all of the information required to complete the purchase by the shopper for the

items (products or services) that the shopper has selected from the various merchants visited during the active shopping session. In this context file 930 represents the data required to complete the purchase.

[0235] The process store invoice 904 function compiles products into merchant grouping for credit card processing purposes. The function sub-totals line items by merchant and store, processes applicable merchant and ShopLive discounts, validates inventory and product availability, gets delivery method information from shopper, calculates delivery costs and displays invoice totals to shopper for purchase confirmation.

[0236] The select payment method function 902 confirms payment method for purchase with shopper. The function gets financial data from Shopper profile, determines which payment method the shopper wishes to use, confirms which payment types the merchant(s) accepts and prepares credit card order(s) for processing. This function also handles the application of any gift certificates as a payment method for product purchase.

[0237] The process credit card sale function 905 handles the transmission of credit card purchases to an external credit card processing facility. Upon confirmation or declination of the transaction, the function manages the notification of the sale as well as updating the shopper purchase history.

[0238] Once the purchase is completed all of the shopper and merchants files are updated with the purchase transaction details 940. This purchase information is assessable by the external ShopLive financials (AR, AP and GL).

[0239] The send order confirmation to shopper function 906 formats order confirmation data into a standard email format and sends the order and purchase confirmation to the shopper's email. The function also displays the order and purchase details to the shopper screen 916.

[0240] The send order details to merchant functions 908 handles the format and transmission of the, purchase order confirmation to the merchant, shipping order details from shopper profile if applicable, merchant pick slip for warehouse staff and order preparation and XML delivery sheet to external delivery application.

[0241] The update ShopLive financial data function 910 manages the update of the system financial data. The function updates shopping cart to reflect purchases, updates shopping mission events to reflect purchase, creates the required interface records for ShopLive financials (AP, GL, AR) and update shopper's purchase history.

[0242] The business rules for the purchase gateway established the method for purchase fulfillment for the walk-in shopper in a physical location in much the same method as for a regular ShopLive shopper. The primary differences is walk-in shopper's is identified via their unique token, a walk-in shopper may initiate purchases at any of the tablets or upon exiting the physical property and the shopping centers may have a warehouse fulfillment center to complete shopper's order. The purchase fulfillment function is further defined in FIG. 17, process 1700 and the related textual specification.

[0243] Referring to FIG. 10, the order fulfillment process 1000 for a particular embodiment of the ShopLive system used in a physical walk-in embodiment known as "Creations" is diagrammed.

[0244] Order Fulfillment in Creations uses enhanced fulfillment capabilities unique to it. Additional functionality is provided to address the specific order fulfillment business processes required by the Creations warehouse and in-house staff. Creation's shoppers are unique in that they use the ShopLive application to complete their shopping mission, either via the Internet or live at a Creations location.

[0245] A shopper deciding to complete the purchase transaction whether at the Creations checkout or from one of the kiosk tablets located throughout the location triggers process purchase orders within Creations. Once completed the purchase function causes a Purchase Order to be generated by the purchase gateway FIG. 9 process 900. The purchase order document is handled by the process purchase order 1002, this function decodes the XML document, updates the incoming purchase order 1004 table and prepares the order for additional processing.

[0246] Produce pick slips function 1006 takes the incoming purchase order, validates the order against the sales history and merchant inventory 1030, generates a pick slip 1008 that can be used by warehouse staff for order compilation and generate an XML Delivery sheet for those orders where the customer has selected delivery as their method of order fulfillment.

[0247] Produce warehouse reports 1010 for the Creations warehouse staff uses this function to produce the various warehouse reports to be used for order processing, warehouse management and external delivery functions 1020.

[0248] Process warehouse pick slips function 1012 allows the warehouse staff to complete the pick slip processing after an order has been compiled and prepared for the shopper. Order details are entered and the original order marked as completed.

[0249] Referring to FIG. 11 the ShopLive session is created when a shopper signs into the ShopLive transaction gateway 1100 using the ShopLive Browser via the Internet, through a kiosk or by interacting with a Creation's touch pad or like entry devices. The ShopLive application creates a unique shopping session for that specific shopper. This session serves as the transaction gateway through which the shopper completes their shopping experience.

[0250] The shopper login 402 manages the validation of shopper name and password to ensure that the shopper is a registered ShopLive 502. For a new shopper the function initiates shopper registration or sets up the user as an anonymous shopper if they choose not to register. Once completed the shopper login function 402 passes control to the initiate ShopLive Session module 404. Creation's shoppers are assigned a token or card used to facilitate their purchases at the various tablets or kiosks on the property.

[0251] The initiated the ShopLive session function 1130 creates all of the temporary tables required by the ShopLive session modules including creation of the various temporary tables required by the system. The function performs the following tasks of creating active shopping mission, active shopping cart and reading shopper data to determine status of last session, initiate rebuild of last shopping mission and shopping cart if required, loading shopper profile/preference data for shopping mission, initiate shopper notification queues and loading up application cache files such as merchant and store directories.

[0252] The automatic session timeout 1106 automatically times out after a certain period of shopper inactivity. The period is controlled by system parameters within the ShopLive system tables. Once a session has reached the timeout threshold, the session, shopping cart and mission data is written to system tables. When a shopper reconnects their session by logging in again they are asked whether they wish to reconnect to their previous/existing session.

[0253] The same session management rules apply for an Internet based Creation's shopper. Shoppers physically present at a Creation's location have extended session time thresholds and are automatically disconnected when the shopper exits the Creations location.

[0254] The download ShopLive Browser function 1108 handles the download of the ShopLive Browser to the shopper's terminal when initiated by the shopper. The function determines if the shopper has a current version of the video software and manages the download and installation of the plug-in. The module also updates the shopper master data to reflect current version of video software.

[0255] Referring to FIG. 12, the session gateway framework 1200 uses a common gateway to manage the information exchange between the ShopLive application components and the application users. The session gateway supports the interaction between the components operating at the mall or merchant level and the ShopLive transaction Gateway (shopper session) running on the ShopLive servers. Additionally the Session Gateway Framework manages the distribution and routing of events from the ShopLive video sessions to the session logs. This module details the processing of XML messages rather than ShopLive system events or system notifications. The processing of those message events is detailed within other system processes.

[0256] The processing XML event module 1202 processes the incoming XML form external applications. The process identifies the XML form, performs preliminary validations and format checks and then registers the document within the inbound message queue 1230. Typical XML forms include external search results, inventory updates, catalog updates, delivery notification updates and other document communications from remote or external applications.

[0257] The acknowledge message receipt 1206 manages the creation of message acknowledgement receipt for those external applications requiring delivery confirmation. The receipts are automatically created and written to the outbound XML message table 1250.

[0258] The decode XML messages 1208 each have documented decode rules defined within ShopLive system tables. This process identifies the XML message type and decodes the message content according to pre-defined business processing rules into valid ShopLive events 1260. Any errors encountered are excluded and written to the system error log 1240.

[0259] The process errors 1210 creates XML error messages to be returned to the external processes notifying them that error were encountered with their XML transactions. The outbound XML forms are written to the outbound XML message table.

[0260] The message delivery function 1212 delivers messages to the appropriate application module. Events are recorded against the appropriate shopper session.

[0261] The process event message module 1214 processes the application events from internal processes to create outbound messages 1280. It identifies the outbound message, the correct XML form, performs format checks and then registers the document within the outbound message queue. Typical outbound XML forms include external search requests, inventory queries, purchase orders, sales confirmations and delivery notification updates.

[0262] The encode XML messages function 1218 documents encode rules defined within ShopLive system tables. This process identifies the XML message type and encodes the message content according to pre-defined business processing rules into valid external XML forms 1250.

[0263] The deliver XML messages function 1220, delivers (sends) secure messages to the appropriate external applications.

[0264] Referring to FIG. 13, the search engine 1300 application provides the ability for a shopper or SLA to search for malls, stores or products through a ShopLive search engine. The search engine accesses both ShopLive internal and external databases for this information.

[0265] The search ShopLive directories search engine 1302 allows the system user to search the directories of mall and merchant information 1304 using various search criteria. The Search engine 1302 allows the shopper (or other ShopLive system user) to search for shopping malls, search for merchants and search for video stations. The search engine utilizes intelligent search technology by pre-filling search fields using shopper mission and shopper preference data. Shoppers are able to search by name, geographic location, category and other criteria.

[0266] The search for products 1312 and video stations 1316 function allows the shopper to search the ShopLive catalogs for product information and video stations. The search engine uses shopper mission and shopper profile data to streamline the search process. The shopper is also able to search video catalogs for product information.

[0267] The search external catalogs function 1314 manages the search functionality for external merchant catalogs. The function is further defined in the FIG. 14. The process is an external search that determines if the merchant maintains an external catalog, encodes search request in XML, transmits search request to merchant system URL, decodes search results and delivers search results to shopper. The function monitors the search results and automatically rejects those that exceed the time threshold for the external search API processing.

[0268] The tables that the search engines access on behalf of the ShopLive systems uses is represented 1330. These contain all necessary data for the malls, merchants, video stations and merchant catalogs. The data from these tables are used to prepare displays for the shopper. The search results information from ShopLive is displayed 1332 as Internet web pages (typically in HTML, WML or other ANSI standard Internet device displayable format) to the ShopLive session. The Internet browser (i.e. Netscape or Internet Explorer) has this functionality built in to display these pages to a Shopper.

[0269] Referring to FIG. 14, the search API process 1400 is automatically initiated when ShopLive merchant partners

allow access to external catalogs. Process 1402 initiates external searches using the ShopLive intelligent search engine, which presents the shopper search criteria and creates a search request 1420. The search request is encoded into an XML message 1218 using product and merchant data along with XML validation rules represented in tables in 1430 to create an XML search record 1440.

[0270] The search record is processed and the XML messages 1220 is sent to an external merchant. The decode XML message 1208 process then processes the incoming search results from the external catalogs. The search results are matched against the original search request 1440 and valid search results are written to 1450. Process 1212 message delivery processes the search results from 1450 decodes them according to the validation rules 1460 and then displays the formatted catalog search results to the shopper.

[0271] Referring to FIG. 15, a catalog access sub-system 1500 manages the catalogues, images, contents, and video image banks for ShopLive merchants. The application provides access to catalog information for retail stores for the shopper. The application accesses the ShopLive catalog data directly for the shopper or provides a common interface to the catalog information stored in external databases.

[0272] The application 1500 provides access to catalog information on both retail and a chain level for the shopper. The application either accesses catalog data directly for the shopper or provides a common interface to the catalog information stored in external databases. This component supports catalog content as text, images or video images as needed. Catalog access supports the following functions. ShopLive administrators reserve the right to access and execute all of the below functions at any time, if needed:

[0273] The addition of product function 1502 permits a merchant to add new products to their catalogs. Any limits on how many products are allowed are not decided at this time. This includes all data about products including but not limited to product identification, characteristics, dimensions, usages and applications, pricing structures and reference material, including supporting products, comparable products, etc. Merchants are also able to upload multimedia data associated with the product at this time.

[0274] The system supports product-by-product addition through a user interface or batch update through an XML-defined product load batch file 1514. The batch adds new products and updates existing products.

[0275] Update of products 1504 allows merchant to login in to the ShopLive application and update existing products in their respective catalogs. They are able to change all information except production identification numbers, which is generated by ShopLive.

[0276] Merchants are also able to update products through an XML product loading batch file. The batch file inserts new products into the database, and update existing products.

[0277] Deletion of products 1506 allows the merchant to access their ShopLive accounts and suspend products temporarily or permanently but is not able to physically delete them. This is for security and integrity purposes. The system does not allow external mass deletion of products. ShopLive allows merchants to login into the system, query several

products and deactivate them, but not send batch files through the XML interface for deletion.

[0278] Update of product inventory 1508 allows inventories to be directly associated with products as product attributes. Merchants have the responsibility of updating product inventories for catalogs they have created in ShopLive on a regular basis. ShopLive checks inventory internally for internal catalogs (as opposed to external catalogs for inventory updates, see FIG. 16.)

[0279] Product image loading 1510 allows products to have images associated with them. Merchants have the ability to upload true-color images associated with the products in their catalogs. Product inventory can be updated using XML batch file loading (product update).

[0280] Product video clip loading 1512 gives merchants the ability to load video clips showing products in various settings as well as for shopper assistance or Help purposes, e.g. where installation instructions are required for a product. The specifications for video clips or number of clips per product are not decided at this time.

[0281] Tables 1530 are used to hold the merchant product catalog data, video catalog data. Product inventory and other related merchant catalog information including product pricing. The merchant specific tables 1530 are updated through all of the catalog access functions 1502, 1506, 1508, 1510, 1512, and 1514 feeding data into it.

[0282] Referring to FIG. 1600 the external inventory access 1600 provides the ability to query catalog inventory availability at a store location level. Inventory that is managed by the ShopLive application is accessible immediately while external inventory system data is provided through a common interface. A common method of exchanging inventory data is documented and supported by participants in the ShopLive application inventory API and XML forms.

[0283] External inventory query 1602 queries external merchants' product inventory by sending an XML format query packet through its API. The merchants' systems send back an XML-based response packet. A temporary external inventory 1640 is created. The format XML inventory query 1604 process utilizes inventory, product, merchant and XML validation rules 1630 to create the XML inventory query 1660. The inventory query is processed and the XML message 1608 is sent to an external inventory application. The response from the external application is processed by process external responses 1614 and written to XML query results 1660. The process external responses 1614 internally processes the incoming XML responses from external merchant inventory. Messages exceeding the time threshold are discarded. Remaining messages are formatted into ShopLive event or notification format and transmitted to the requesting application.

[0284] The query results are matched against the original query results 1660. The decode inventory data 1610 processes the incoming query results. Process 1606 delivers the inventory query results to the originating ShopLive process. ShopLive's underlying session gateway framework checks and routes XML packets to their correct destinations and handles the communication between ShopLive's internal system and the external merchant system. Process 1616 external inventory updates is a function that automatically handles external inventory updates from ShopLive mer-

chants and initiates the inventory update process. The process external inventory updates 1616, is the internal process that provides the ability to process inventory updates from merchants for their online ShopLive catalog products and update the inventory amounts accordingly. Merchants can also update inventory using the catalog maintenance function.

[0285] Referring to FIG. 1700, the purchase fulfillment application 1700 provides the ability to confirm purchases on behalf of a ShopLive shopper, complete the purchase cycle and handle order fulfillment including pick-up, shipping and handling based on shopper preferences. Purchase fulfillment may be handled within ShopLive through an interface to an external Purchase Fulfillment application or through an interface with a retailer's application for that process.

[0286] The steps in this section only apply if ShopLive is performing the fulfillment function. The second case may be that ShopLive is acting as a conduit between the shopper and the retailer and sending the purchase request across to the retailer, who does the fulfillment. In this case, the steps given in this section are not required. Consequently, ShopLive notifies the shopper that it is not able to provide status information about the fulfillment of their purchase and s/he must contact the retailer directly for the status.

[0287] The Purchase Fulfillment component in ShopLive has the following functions.

[0288] When the shopper confirms the order within the purchase gateway 900 an XML Purchase Order is generated and sent to the Purchase Fulfillment 1700 component. The Purchase Order is handled by the Process Purchase Request 1702 function that validates the format and writes the PO to a temporary table, incoming purchase order 1704. The inventory check and update process 1706 confirms that the inventory is available for the merchant using information from tables 1720. After doing all internal processing, the inventory record is updated to reduce it by the quantity of the shopper's purchase and a customer order and pick slip record is created in the appropriate application tables 1704. In case of an external inventory query, the information required by the Inventory API 1600 is transmitted in the form of an XML request for the external system to process.

[0289] Once the inventory has been updated, the function sales slip generation 1710 creates a sales slip that is transmitted to the ShopLive merchant along with the customer order details.

[0290] The process pick slips 1712 function creates an XML pick slip for use by the merchant in preparing the shopper's order.

[0291] The process delivery notice 1714 function is used by ShopLive to provide shipment delivery details to the external delivery applications 1020. The Delivery sheet notifies the shipper of the shipment details. The merchant is able to cross-verify this through the sales slip they have received from ShopLive.

[0292] Once the shipper has picked up the purchase from the pickup location, they send a shipping confirmation to ShopLive that is processed by the function process shipping confirmation 1716 that automatically matches the confirmation to the customer order and updates the tables in 1704.

[0293] After delivering the shipment to the delivery location specified on the delivery slip, the shipper notifies ShopLive of delivery confirmation via a XML delivery details form that is processed by the function process delivery confirmation 1718. The customer order information 1704 is automatically updated.

[0294] The shopper can logon to ShopLive anytime and check the status of their shipment since ShopLive has done the booking by interfacing with the shipper and the booking number is available.

[0295] The produce warehouse and inventory report function 1708 generates retailer warehouse pick reports and inventory update reports that can be used by the retailer to track ShopLive generated orders within their store inventory, create delivery slips and provide inventory control.

[0296] Referring to FIG. 18, the application 1800 provides shopper profile information to registered merchants or merchants requiring profile information. Trend and market analysis reports by demographic groups are available for data mining by merchants and malls. Merchants and malls are able to access and print reports using the ShopLive reporting functions.

[0297] The create staging tables internal batch process 1802 creates temporary staging tables, which are used to compile the statistical and marketing analysis reports for the data warehouse. The batch processes extract the relevant data from the ShopLive shopper, purchase history, session and system tables 1804 and create temporary staging tables 1806.

[0298] The create staging tables is an internal batch process that creates temporary staging tables 1830 that are used to compile the statistical and marketing analysis reports for the data warehouse. The batch processes extract the relevant data from the ShopLive shopper, purchase history, session and system tables 1820 and create the temporary staging tables and statistical tables for data mining purposes. The process compiles statistics on a shopper demographic basis concentrating on the following types of data; frequency of visits, duration of visits, number of retailers visited, number and amount of purchases, average purchase amount, advertising statistics, purchase trends, favorite products and brands.

[0299] The create monthly statistics internal process 1804 uses the temporary staging tables 1830 to update ShopLive transaction tables 1840 with demographic monthly statistics for merchants, demographic groups and individual shoppers.

[0300] The produce marketing and traffic reports function 1806 produces the various ShopLive corporate marketing and traffic reports produced periodically (weekly, monthly etc) for market analysis and billing purposes.

[0301] The query demographic sales data function 1808 accesses transaction tables 1840 to allow authorized merchants to view demographic sales data compiled by ShopLive for marketing purposes. Merchants are able to utilize the sales information for planning and marketing purposes.

[0302] The produce marketing and traffic reports 1810 produces various reports for retailers and Malls on the statistical data gathered by the ShopLive application. Various reports detailing consumer sales, merchant traffic and mall activity are available to merchants, malls and ShopLive marketing staff members.

[0303] Consumer purchase data (subject to consumer privacy regulations) is available for statistical purposes and other data mining exercises. Consumer purchase data (subject to consumer privacy regulations) is available for statistical purposes and other data mining exercises. Data collected within the data warehouse (reference FIG. 18 marketing reports and shopper profiling) is available for analysis by in-house or external data mining engines.

[0304] Initially the ShopLive application collects shopper behavioral data and focusing on:

[0305] compiling and analyzing data for shopper, merchant and group demographics,

[0306] collecting and analyzing consumer responses to surveys,

[0307] collecting and analyzing shopper purchase history,

[0308] collecting and analyzing the buying experience,

[0309] performing human factor analysis for marketing purposes,

[0310] performing retail trend analysis,

[0311] measuring merchant and sales staff sales ability, and

[0312] measuring effectiveness of ads and promotions via merchant sales.

[0313] ShopLive merchant websites host a profile for each merchant or Creation's tenant registered with the application. The profile provides shoppers with a summary overview of the merchant, their services and their location specific information including links to their online catalog and inventory. ShopLive provides the tenant the tools to manage their profile information including access to system utilities to upload profile content to the ShopLive servers. The suite of tools available to the merchant are covered in FIG. 21 merchant administration systems (reference 2318 manage merchant profile).

[0314] ShopLive allows registered merchants to deliver customized or personalized content to the shoppers when accessing their websites. This feature allows the merchant to automatically provide a different look and feel based on the shopper preferences, merchant marketing preferences and shopper demographics. The ShopLive application tracks consumer behavior and sales statistics for marketing and trend analysis purposes.

[0315] Referring to FIG. 19, the customer relationship management sub-system 1900 allows ShopLive to handle customer relationship management services from shoppers, merchants and malls. The system provides 3 levels of assistance for the ShopLive customers access to online Help, email responses to customer comment forms submitted by the shopper or merchants and direct contact with SLA through ShopLive video sessions.

[0316] The agent registration function 1902 allows the registration of ShopLive agents within the ShopLive application. Once registered each agent has access to the CRM customer management tools through login 1903. Agent registration supports the concept of remote or virtual agents. Virtual agents are networked from remote locations into the

ShopLive system to serve as SLAs. Using virtual agents allows the merchant or vendor to staff its storefront 24/7 without having a dedicated sales person. Virtual agents have the full video and voice connection to connect into the ShopLive network and have access to the product information data bases to pull up product availability, pricing, specifications, shipping schedules and the like.

[0317] The manage session parameters function allows the ShopLive administrator to manage the session parameters 1904 associated with each user session including priority.

[0318] The view statistics and traffic reports function 1906 allows the ShopLive administrator to view and print traffic and shopper visit reports for malls and merchants. These reports are combined with third party traffic reports for marketing and data mining purposes.

[0319] Through the manage system help files function 1908 the administrator updates the ShopLive system based help files. ShopLive provides an Internet database of ShopLive Help information and frequently asked questions (FAQ), which the shopper can browse at their leisure. Access to ShopLive help functions is available for all ShopLive customers.

[0320] Shoppers and merchants can contact a personal shopper should they have any queries that the ShopLive Help files or FAQ pages are unable to address. In some instances the SLA complete a customer comment form on their behalf and submit the comment for resolution by the CRM group. The request for SLA assistance is processed as an agent notification using the internal ANQ notification process 1910.

[0321] The manage customer comments function 1912 allows the management of customer comments by the customer service representatives or SLA agents. Customers (shoppers, merchants or malls) can record complaints, issues or compliments using a customer comment card from the ShopLive website. Upon receipt of a customer comment form the customer receives a personalized email acknowledging receipt and assigning a unique ID for tracking purposes. The customer can check the status of their comment through the ShopLive application. Once an issue is resolved the resolution is transmitted to the customer and the issue closed.

[0322] The manage ShopLive sessions function 1914 allows the SLA to manage the shopping sessions when they are connected with a shopper via the ShopLive session gateway framework. As well as manage videoconferences 1920 between a shopper and other shopper participants. The SLA respond to notifications from shoppers, contacts merchants on behalf of a shopper, make appointments for a shopper with a merchant, performs searches on behalf of a shopper, push web pages to a shopper session, queries the shopper's mission, review shopper's session events to determine shopper's activity or query the shopper's profile data. All of this information is contained in the tables represented by process 1930.

[0323] The produce static HTML Help Pages 1916 is an internal system component, which automatically creates the static HTML Help and FAQ pages, once the system administrator has updated them. Pre-building HTML pages is more efficient than accessing the ShopLive database for each user.

[0324] Referring to FIG. 20, the ShopLive administration system 2000 consists of components and sub-systems required to manage the system control files, system users and system tables. It manages the database and administrative functions for the ShopLive applications gateways. The maintain ShopLive corporate profile function 2002 allows the administrator to update the ShopLive corporate information, which is used to populate the profile web pages. The register system users function 2004 allows the administrator to register system users including merchants, mall agents and personal shoppers or SLA as well as assign various security levels to the individuals. The maintain mall directory data function 2006 allows the administrator to register and update mall directory information. Each mall is registered in the ShopLive application and provided initial access and security authority.

[0325] The maintain shopper data function 2008 is used by the administrator, to manage the shopper sessions and key shopper information. The administrator can update shopper registration data, reset shopper passwords, suspend or reinstate and query shopper data and produce reports.

[0326] The produce ShopLive static pages generic function 2010 automatically creates HTML web pages from ShopLive corporate data once data has been updated. Pre-building HTML pages is more efficient than accessing the ShopLive database for each user.

[0327] The login video station function 2012 processes the login process for each video station agent. It establishes the session and updates the agent availability table used by the application when assigning shoppers to agents.

[0328] The process notifications function 2014 is used by ShopLive to manage the video agent notifications to agents, merchants and shoppers and route them to the appropriate agents via traffic control. This function handles routing of notifications to agents based on availability and geographic location, management of agent responses to notifications, managing SNQ parameters and error tracking, automatic creation and routing of informational messages to shoppers, merchants and ShopLive agents, queue management and automatic matching of message responses and clean-up.

[0329] The maintain and upload web page content function 2016 is handled via WS-FTP or similar package. This function provides the ability to transfer completed web pages to ShopLive servers. Control of page versions is typically handled manually or via a third party package.

[0330] The produce activity and traffic reports function 2018 provides ShopLive traffic and activity information to the ShopLive administrator. Some reports are based on ShopLive data and other reports are produced using third party web traffic analysis programs executed over the ShopLive activity logs.

[0331] The maintain system tables function 2020 allows the administrator to add, update, view and delete entries from the various ShopLive system tables 2030. The tables are used throughout the ShopLive application include tables containing city names, state names, product categories, product brands, search criteria, business rules and various other tables.

[0332] The lost password processing function 2022 processes a request for a lost password from a shopper or merchant and then sends the password via email to the shopper as requested.

[0333] This function 2024 allows the administrator to register and update video station information for each of the ShopLive properties. Each video station is registered with the ShopLive application to accommodate searches, video transmission and association with merchants.

[0334] Referring to FIG. 21, the merchant administration system 2100 manages the registration of merchants, locations and departments within mall properties as well as in store video stations.

[0335] The merchant registration 2102 allows the systems administrator to register and update merchant information for each store within a merchant, mall or Creation's location. This function allows merchant registration and the association of a merchant with merchant catalogs and inventory, merchant profile, associate a merchant with a physical store, mall or Creation's location, establish link to merchant profile information, define store departments and associate video stations with a merchant or store front location. This information is stored within the information represented in table 2130.

[0336] The manage merchant profile function 2118 allows the merchant administrator to update the merchant profile information for a specific merchant location. Additional web-site content pages can be uploaded using ShopLive system web tools such as produce ShopLive static pages 2120.

[0337] Once a merchant logs onto their video station 2104, the ShopLive application commences delivering process notifications 2108.

[0338] The maintain video stations function 2106 allows the administrator to register and update video station information for each of the ShopLive properties. Each video station is registered with the ShopLive application to accommodate searches, video transmission and association with merchant. The administrator may also view traffic reports and perform queries 2110.

[0339] The view/print sales and activity reports function 2114 allows the merchant or merchant administrator to print the sales and site activity reports for the various merchants. Reports may also be viewed over the Internet for registered merchants.

[0340] The manage merchant discounts and promotions function 2116 allows the merchant to enter/update product discounts and promotions into the ShopLive or Creation's catalog. The application supports various promotions and discounts, which are processed during the purchase fulfillment processing.

[0341] The manage merchant catalog function 2112 allows the merchant or merchant administrator to enter update product information within the merchants online catalog.

[0342] The manage merchant POS and sales interface function 2122 allows the merchant to print or view sales activity specific to their location. This function integrates merchant POS systems to the ShopLive application. (e.g. Integration with ASP POS solutions).

[0343] The merchant is able to manage and schedule videoconferences 2124 for their video stations.

[0344] Referring to FIG. 22, the mall administration system 2200 manages the registration of malls, mall calendars, corporate profiles and mall related functions within the ShopLive application. The mall registration 2202 allows the systems administrator to register and update mall information. This function allows mall registration and the association of a storefront within mall. This information is stored within the information represented in table 2230.

[0345] The maintain mall profile function 2204 allows the mall administrator to update the mall profile information for a specific mall locations. Additional web-site content pages can be uploaded 2216 using ShopLive system web tools such as produce ShopLive static pages 2220.

[0346] The maintain mall center calendar and events function 2406 allows the mall administrator to maintain the calendar and event information for each mall property.

[0347] The maintain mall directory 2210 function allows the mall administrator to maintain the directory of merchants and storefront locations within the mall. The administrator can associate merchants or business with specific mall physical locations and maintain mall calendar and events 2206. The administrator may also view traffic reports and perform queries 2208.

[0348] The view/print sales and activity reports function 2218 allows the mall or mall administrator to print the sales and site activity reports for the various merchants. Reports may also be viewed over the Internet.

[0349] Once a mall logs onto their video station 2212, the ShopLive application commences delivering process notifications 2214.

[0350] ShopLive uses standard STMP features to send emails to shoppers and agents. Each agent or merchant requires access to an email package to process and respond to the emails. ShopLive provides the capability for shoppers to enter their zip code and provide map Mapquest directions to the nearest mall or merchant location. The application uses the standard Mapquest interface for data collection from the shopper. ShopLive interfaces to various shipping and delivery providers such as FedEx and UPS delivery applications. It uses standard XML delivery notifications to these providers. ShopLive interfaces to external credit card processing financial institutions. Purchase transactions comply with the industry standard secure protocols dictated by the providers. Sub-systems and functions are required to manage the ShopLive web properties. Features supported by this third party product are web site content management, web site tracking and monitoring, ad banner scheduling and management functions and manage mall or merchant Specials and electronic flyers

[0351] FIG. 23 represents the ShopLive Loyalty Program process 2300 by which the application at the mall or shopper level interfaces to loyalty programs and identifies ShopLive shoppers via registration numbers. The loyalty program application may be a ShopLive implemented application or an external application. The sub-system provides the following functions.

[0352] ShopLive offers a variety of loyalty programs to shoppers through internal and external programs. ShopLive views loyalty programs as a marketing solution tool and has

been designed to offer the shopper the utmost flexibility when selecting a loyalty program.

[0353] During the registration process, shoppers are provided the option of selecting from one of several loyalty programs. The rewards offered by the loyalty programs are structured to the shopper's preferences. Additionally ShopLive supports integration to external loyalty program providers. Typical loyalty program offerings include coupon-based programs; rebates based on inventory and points accumulation programs for future product or service redemption.

[0354] The flexible loyalty programs allow merchants and supplier to target loyalty program members with special offerings and promotions. Merchants can determine which programs are the most effective for securing and maintaining customer loyalty. Merchants are able to determine effectiveness of their marketing efforts using loyalty programs as an effective marketing tool.

[0355] ShopLive can accumulate various rewards and present them in a single statement to the shopper. Because it has the shopper's personal data and merchant data it can process the rewards for the shopper.

[0356] The ShopLive application at the mall or shopper level interfaces to loyalty programs and identifies ShopLive shoppers via their ShopLive registration numbers. The loyalty program application may be a ShopLive implemented application or an external application. The sub-system provides the following functions.

[0357] The loyalty shopper registration function 2302 provides the ability to register ShopLive shoppers and issue them loyalty cards linked to their shopper accounts. ShopLive provides shopper profile data 2330 from internal databases to avoid entry duplication.

[0358] The process point accumulation function 2306 provides the ability to assign loyalty program points based on shopper purchases or merchant site visits. Purchase information is processed during actual shopper purchases or calculated during data mining batch processing of shopping session logs.

[0359] The process loyalty program redemptions function 2304 manages the redemption of loyalty program points by a shopper. The function processes redemptions for gift certificates, merchant products or live discounts during shopper purchases.

[0360] The produce shopper reports function 2314 produces periodic reports for shoppers and merchants detailing point's accumulation, merchant traffic and point's redemption by the shopper. Loyalty program reports may be emailed to ShopLive shoppers.

[0361] The manage loyalty program promotions function 2308 allows the loyalty program administrator to maintain the various program promotions. The system allows the creation and update of business rules associated with the loyalty program promotions.

[0362] Process External Loyalty Program Data 2310 function allows the Loyalty program to accept shopper data and point updates from external loyalty program providers. This allows the external application to be synchronized with the

ShopLive program. Information is typically received from external programs in standard XML update transmissions.

[0363] FIG. 24 represents ShopLive auctions that provide system functions to manage both dynamic and static auctions by ShopLive merchants 2400. The video conferencing software provides the video support for the dynamic auctions including scheduling and fulfillment within the ShopLive environment. ShopLive provides an interface to an external third party auction application service provider (ASP). A typical auction component provides the following functionality:

[0364] Auction scheduling function 2402 allows merchants to schedule live video auctions and static auctions within the ShopLive application. Merchants update the auction schedule, detailing the auction parameters including dates and products to be included in the auction. Merchants can update the list of participants to be included during automatic notification processing.

[0365] Auction registration function 2412 allows shoppers to register for a scheduled auction and be assigned an automatic bid code for dynamic auctions. The function also handles the notification of participants who have registered for an auction. Live video may be used to conduct the auction and preview sales items.

[0366] Manage live auction this function 2404 provides the merchant the automated tools to manage the live auctions. One way to do this is using videoconference capabilities. Merchants are able to record bids, interact with shoppers during the auction and manage time limits.

[0367] Manage static auctions this function 2406 allows the merchant to manage the processes associated with static auctions. Merchants can review static bids respond to shopper queries and accept auction registrants and manage auction time limits.

[0368] The update auction catalog function 2408 allows the merchant to maintain the catalog that holds product description of the items to be auctioned. The merchant can add explanatory text, item quantities, graphic or video images as well as setting reserve bid for specific items.

[0369] Bid on auction items function 2416 allows the shopper to submit bids for both static and dynamic auctions. Shoppers submit automatic bids, define bid ranges and use this process to track active products currently being auctioned.

[0370] The manage shopper bids function 2410 allows the ShopLive application to process bids for products by shoppers during live or dynamic auctions. The function monitors bids from registrants communicate bids to merchants during the auction and manage notifications to shoppers of bid results.

[0371] The process auction purchase function 2418 allows the merchant to process the shopper auction purchase once the auction has been successfully completed. Once a shopper's bid has been selected the process sends a message to the shopper notifying them of a successful bid, compiles purchase details and interface to purchase gateway for credit card processing to handle the purchase confirmation with the shopper credit card processing. The ShopLive auction function accesses system tables 2430 to read and update auction information and ShopLive tables as necessary.

[0372] FIG. 25 represents the process for nightly shopper notifications 2500. The ShopLive application incorporates a module to handle notification of sale items or hot items flagged within the shopper's personal folder. This module reads the shopper's notification queue 2530 and alerts the shopper to notifications of specials or sale items. The module manages login notification 2510 by alerting the customer when they login 2506 and alerts shoppers immediately of sales or bargains through the PNQ via the process notification 2510 processing. Wireless notifications of sales items for shoppers may also be used.

[0373] The nightly batch processing function 2502 makes use of the personal notification processing function 2510 to alert shoppers to sale items or automatic personal reminders. The application updates the notification queues in both real-time and as part of a scheduled batch nightly process.

[0374] The build/update shopper PNQ Queue function 2504 reads the shopper profile and calendars items from the ShopLive tables 2520 and builds or updates the shopper's persistent PNQ 2530 with reminders or notices of product sales from preferred merchants or for designated hot items.

[0375] When the Shopper login 2506 occurs, the initiate session internal process 2508 executes to create the session PNQ 2540. The PNQ 2540 contains all of the shopper notifications. The PNQ Queue 2540 uses the process notifications function 2510 to deliver notifications, sales items and scheduled events to the shopper's session.

#### Creations Model

[0376] Referring to FIG. 26, the diagram is a pictorial representation of the proposed implementation of the ShopLive application in the Creations environment. It describes the Creations application in terms of functionality, services availability and information collections. The Creations implementation is based on ShopLive components that are clustered together to provide the supporting functionality. The Creations implementation is an example of specialized applications of the ShopLive technology, however the underlying approach to clustering components is the basis for multiple implementation.

[0377] The Creations implementation describes the functional areas from the perspective of the services provided by ShopLive Internet and the creations retail merchants to both the Internet and walk-in shopper. The diagram consists of two primary groupings of components and inherent services that are described below.

[0378] ShopLive Internet 2602 functional group is a composite of ShopLive functions supporting the Creations implementation. Shoppers, ShopLive administrators and ShopLive CRM functions services are supported from this group of components. The individual components and their related information are depicted as functional areas in the diagram and relate back to the primary and secondary components previously described. The session gateway framework component of 2602 manages communication and exchange of information with the other functional areas. The arrows within the diagrams depict information exchange. Typical services or functions available to Creations system users include access to shopper profile functions and services, shopping mission management services, video camera delivery and management services, SLA pro-

cessing (services, assistance and data), purchase gateway functions and services, shopping cart functions, mall registry functions, store (merchant) registry functions, video station registry services, Creations merchant websites and system profiles, loyalty program services, shopper profiling and various marketing reports for Creations merchants, merchant catalog functions and data, access to video catalog functions and data, merchant inventory services and ShopLive search engines.

[0379] The creations functional area 2604 describes the services and functions provided by a typical Creations Mall within the application. Creations system users interact with ShopLive, merchants and shoppers via the Session Gateway Framework component. Typical services or functions available to the Creations location are access to ShopLive search engines, retail merchant directory information, inventory management services, product shipping services (including external applications such as FedEx), merchant access to catalog administration services, access to video catalog administration services, warehouse and inventory management services, future integration to POS systems, access to live video shopping services, access to customer order administration functions, provision and access to SLA functions by the mall assistants and mall specific marketing and traffic information reports.

[0380] Referring to FIG. 27 video management system for the ShopLive application provides video management services for the merchant and video shoppers. The ShopLive application design closely integrates the video cameras with the merchant products in a typical store location to support the live shopping experience for the Internet shopper.

[0381] The cameras are closely integrated with the merchant product catalog and allow Internet shoppers to select a product from the online catalog and have the camera immediately focus on that product. The shopper selects an alternate view of the same product by using one of the overlapping cameras or by manipulating the camera movement via the Internet. Built in video management intelligence allows the software to determine the products which the shopper is viewing (based on camera location feedback and video grid analysis) and provides detailed product information from online merchant catalogs. The video management software allows the shopper to be automatically passed to an adjoining camera during storefront browsing sessions.

[0382] Correct positioning and layout of in-store video cameras provides optimum viewing functionality for Internet shoppers. ShopLive has completed extensive analysis to arrive at the layout specifications for deployment in a retail location. Video Camera layout specifications for a typical Creations location have been developed specifically to address optimal viewing angles and camera location, maximum merchandise coverage, overlap of viewing coverage areas to provide for multi-camera coverage, and association of products to pre-defined grid locations within a merchant storefront. The Video Station Layout Specification diagram FIG. 27 is a plan view of the positioning of video stations within a Creations location 2700 to provide optimal camera coverage of merchant locations. In the attached diagram cameras 2702 and 2704 provide overlapping coverage of the multiple walled storefront 2705. A typical video camera 2706 provides partial coverage of four surrounding store-

fronts. Locating the video cameras 2702 and 2704 in a staggered fashion at the end of the storefront walls gives the maximum coverage for each camera to a remote video shopper. In this arrangement remote video shoppers have access to several cameras for viewing merchandise within a storefront to achieve a viewing experience comparable to being in the storefront in person. This combination of cameras effectively sweeps the vertical and horizontal planes of storefronts to create the visual equivalent of an in person viewing of merchandise.

[0383] Referring to FIG. 28, incorporating the video cameras and touch screen tablets into pre-assembled and pre-wired modular columns allow the deployment of the ShopLive vide camera technology into existing or new retail merchant locations. The modular columns are designed to provide a sturdy platform to enable the ShopLive technology yet be unobtrusive in the retail environment. Video camera workstations are available making use of the latest technology including RFI (Radio Frequency transmissions) to allow them to be stand-alone units without physical wiring restrictions.

[0384] Shown is a standing column 2802 incorporating a touch screen 2804 for accessing ShopLive. The column 2802 rests on a base 2806. Within column 2806 is one or more hinged video cameras and associated motors 2810 movable to view items within a 360-degree arc and hinged to move vertically. A wall unit 2812 is also shown demonstrating a video camera attached to a wall mount. A front view of the movable camera is shown in module 2814. Alone or in combination, these cameras can be used in an existing store setting to allow remote viewing of the merchandise but not disrupt or interfere with the retail operation.

[0385] Referring to FIG. 29, live Browser 2900 is a specialized application of the ShopLive video technology for delivering multi-media content for registered ShopLive users and to broadband subscribers.

[0386] The Live Browser consists of an Internet browser and an interactive custom screensaver. When a registered shopper is surfing the net the Live Browser displays custom content based on shopper preferences to a reserved area live screen real estate of the browser menu. The content consists of news, music videos, financial news, Internet radio, advertisements and other Internet multi-media content. The Live Browser also feature special toolbar items that allow the shopper to complete ShopLive application functions with a single click of the mouse. The interactive screensaver displays personalized content based on shopper preferences, when the PC or like portal is idle. The shopper can immediately obtain additional information about a product being displayed on the interactive screen saver with a click of their mouse. The shopper may return to the Live Browser by pressing a key.

[0387] The browser is based upon the following concepts. It provides consumers with a specialized PC Live Browser screensaver that turns their PC or like device such a web TV or mobile device into an advertising medium. The Live Browser streams specialized personalized multi-media content to each shopper's portal via a custom live browser and interactive screen saver application. The content including advertisements and product infomercials are targeted to the customer based upon their shopper profile, brand preferences, and purchase history and family or consumer demo-

graphics. Registered ShopLive shoppers who wish to participate in the program can receive incentives such as free DSL Broadband or credits against subscription fees, discounts, coupons, rewards or prizes for their participation. The optional free DSL broadband typically is provided from an ISP or Telco provider who has partnered with Live Browser. In exchange for the incentives the shopper agrees to run the live browser on their PC on a 24/7 schedule. Incentives can be earned through visiting a predefined number of ShopLive merchants on a periodic basis and participation in the ShopLive loyalty program, purchasing a certain dollar amount of products from ShopLive merchants on a periodic basis monthly, quarterly or annually or through coupon redemption. In exchange for this activity with ShopLive merchants various incentives are made available for the shopper including the subsidization of the cost of the DSL.

[0388] The Live Browser provides a new advertising outlet for ShopLive merchants and partners who are provided a dedicated audience for the media. Content consists of video, graphical and textual messages with sound, which are displayed to the shoppers PC via the browser. Content is personalized to the shopper to the shopper preferences as noted above. The shopper is able to click on an advertisement that interests them and be taken immediately to the merchant offering that product.

[0389] The Live browser provides the ability for the shopper to immediately connect with an SLA or a video merchant (via 404 Initiate Session) who can respond to any questions concerning the product or service offering. The Live browser is integrated with the other ShopLive offerings such as Rewards Live, Serve Live, Expert Live and Online Referrals. Access 10 these services can be triggered through the purchase of a product from a ShopLive merchant.

[0390] The Live browser provides the ability to stream infomercials and product demonstrations for shoppers based on their shopper profile. It supports all standard operating systems including windows, Linux and Macintosh. The Live browser supports the delivery of content from the Internet or traditional sources such as TV, Radio and satellite broadcasts and provides for future content delivery such as Internet radio, Internet TV or Internet Video.

[0391] The live Browser 2900 features two distinct components, a Live Browser, interactive screen saver and an Internet browser toolbar, both of which are integrated closely with the ShopLive applications. The downloadable plug-ins is smaller in size and is closely coupled with the ShopLive browser to allow exchange of information.

[0392] The Internet browser toolbar features a customizable ShopLive toolbar menu featuring one button access to ShopLive components as well as a reserved advertising area that displays personalized ShopLive content based upon the shopper's preferences.

[0393] The live browser interactive screensaver acts as a multi-media information channel, that stream personalized multi-media content to the shopper's idle PC based upon the shopper's recorded preferences.

[0394] The shopper is able to utilize the live browser functions by accessing the download live browser and toolbar function 2902, which manages the download and installation of the browser and ensures the shopper has the most recent version installed on their PC.

[0395] The browser login function 2904 allows the shopper to login onto the live browser control panel to have access to Live Browser and ShopLive toolbar controls. The shopper registration information is accessed using shopper profile data from the shopper profile information in tables 2930.

[0396] The manage shopper preferences function 2906 allows the shopper to interactively set the multi-media preferences for their live browser and toolbar. The browser allows the shopper to select from a wide variety of multi-media content (example - news, music videos, financial news, internet radio, advertisements and other multi-media content). The manage content delivery 2908 internal function manages the delivery of content from the various content providers to the live browsers and ShopLive toolbars based on the shopper's preferences. The function maintains the system tables containing the provider information and linking the content providers to their external sites.

[0397] The Process Notifications function 2910 manages the delivery of system notifications to the shopper's ShopLive session. The function 2910 automatically manages the delivery of live browser specific notifications using the ShopLive notification queues. The function detects whether the shopper is using the ShopLive application or the live browser is active and manages the notification delivery accordingly.

[0398] The ShopLive live browser tables 2930 are accessed by the various live browser functions to retrieve and update shopper data.

We claim,

1. A method for selling having the steps of;
  - signing in through an entry portal,
  - selecting items for viewing, and
  - dynamically displaying selected items.
2. The method of claim 1 for selling having the further step of: remotely directing viewing of an item to be purchased.
3. The method of claim 2 having the further step of connecting a shopper portal to a sales assistant's portal to provide a flow of information between said portals.
4. The method for selling of claim 1 having the further steps of:
  - selecting more then one item for purchase from different vendors in a single shopping session.
5. The method for selling of claim 4 having the further step of:
  - assembling items in one electronic shopping cart.
6. The method of claim 3 for selling having the further step, of:
  - processing purchase orders.
7. The method of claim 3 for selling having the further step of:
  - order fulfillment.
8. The method of claim 7 for selling having the further step of:
  - rewarding buyers for purchases.

9. The method of claim 8 for selling having the further step of:

aggregating awards from different vendors into a combined award.

10. A method for assisting shoppers having the steps of; connecting shoppers electronically with a sales assistant, enabling a live query and response session between a shopper and said sales assistant, and

displaying items selected by said sales assistant.

11. The method for assisting shoppers of claim 10 having the further step of:

determining shopping criteria.

12. The method for assisting shoppers of claim 11 having the further step of:

creating a shopper profile.

13. The method for assisting shoppers of claim 12 having the further step of:

selecting items for display based on a shoppers' profile.

14. The method for assisting shoppers having the steps of; displaying merchandise,

creating images of said merchandise,

remotely viewing said images, and

remotely controlling viewing said merchandise.

15. A method for creating assisting shoppers having the steps of;

remotely displaying merchandise in a retail setting,

interrogating an information source on the characteristics of the displayed merchandise,

selecting the merchandise, and

purchasing the merchandise.

16. A method for assisting shoppers through portals to a communication network having the steps of;

querying a shopper to determine shopping objectives,

searching databases for merchandise matches in response to said query,

displaying selected merchandise,

remotely viewing said merchandise, and

dynamically altering the views of said merchandise.

17. The method of claim 16 having the further step of querying the shopper through a portal connected to a telecommunications network.

18. The method of claim 16 having the further step of connecting a shopper portal to a shopper's assistant portal to provide communication between said portals.

19. The method of claim 18 having the further step of querying a shopper to determine the shopper mission by defining description of merchandise sought.

20. The method of claim 16 having the further steps of; querying a shopper to determine merchandise preferences,

querying a shopper to determine demographic data,

collecting data on purchases, and

creating a profile on said shopper.

21. The method of claim 16 having the further step of; creating a virtual shopping cart to assemble merchandise selections.

22. The method of claim 16 having the further step of providing a purchase gateway to allow shoppers to arrange payment for merchandise.

23. The method of claim 22 having the further step of providing delivery options to a shopper.

24. The method of claim 18 having the further step of creating an interactive session between said shopper's portal and said sales assistant's terminal to exchange information on merchandise.

23. The method of claim 16 having the further step of setting criteria for the selection of the merchandise.

24. A method of assisting shopper having the steps of;

connecting a shopper to a communications network through a communications portal,

interrogating shopper for information on merchandise to be purchased,

connecting a shopper through said communications network to a sale assistant gateway, and

sharing information on selected merchandise between said shopper and sales assistant through said communications network.

25. The method of claim 24 having the further steps of providing said sales assistant with historical data on said shopper.

26. A method for presenting information to a shopper to assist in purchasing decision having the steps of;

Originating a communications session in a network,

connecting a shopper through a communications network to a sales assistant,

collecting information from said shopper on objects for the session, and

displaying suitable merchandise based upon the shopper's objectives.

27. The method of claim 26 having the further step of presenting information on sales and rewards to a shopper during the communication session.

28. The method of claim 26 having the further step calculating the value of merchandise selections including discounts, rebates, sales, promotions and rewards.

29. The method of claim 26 having the further step of providing shoppers access to merchants catalogs.

30. The method of claim 26 having the further step of interrogating merchant's inventory to determine availability of merchandise.

31. The method of claim 26 having the further ability to dynamically price goods based upon inventory levels.

32. The method of claim 31 having the further step of a shopper purchasing said merchandise by making selections over said communication network.

33. The method of claim 26 having the further step of, conferencing in one or more shoppers.

34. The method of claim 33 having the further step of a video chat session.

35. The method of claim 32 having the further step of collecting data on shopper's purchases and analyzing said data for marketing.

36. The method of claim 35 having the further step of preparing shopper profiles based on said data.

38. The method of claim 35 having the further step of preparing marketing reports based on said data.

39. The method of claim 26 having the further step of notifying said shopper of bargains and sales.

40. The method of claim 32 of notifying the shopper of delivery options of selected merchandise.

41. The method of claim 32 having the further step of notifying the shopper of delivery modes and dates.

42. A method for displaying merchandise in a space for access by remote cameras having the steps of;

creating display areas,

disposing video cameras in said display areas to scan said displays, connecting one or more shoppers to said cameras through communications networks for viewing, and

remotely manipulating said cameras to allow shoppers to view merchandise within said display area.

43. The method of claim 43 having the further step of shoppers accessing said cameras through communications portals on site.

44. The method of claim 42 having the further step of connecting a sales assistant to said shopper through said communication network.

45. The method of claim 44 having the further step of the sales assistant manipulating said cameras.

46. The method of claim 42 having the further step of issuing tokens to shoppers to make purchase during the shopping session.

47. The method of claim 42 having the further step of a shopper making a purchase.

48. The method of claim 47 of having assembling purchases from inventory and delivering to shopper.

50. A method for streaming advertising to a shopper having the steps;

creating an interactive communication network between a shopper and merchants,

gathering shopper profiles,

selecting advertising based on said shopper profiles,

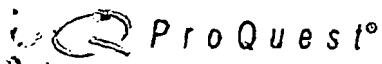
obtaining shopper's permission to stream messages to him, and

presenting information based on said profiles to said shopper through said network.

51. The method of claim 50 having the further step of offering inducements to obtain a shopper's consent to receive said information.

\* \* \* \* \*

EXHIBIT E



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## Look, listen and interact with multimedia; [FINAL Edition]

Craig Crossman. Austin American Statesman. Austin, Tex.: Mar 21, 1994. pg. D.6

Author(s): Craig Crossman

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### Abstract (Document Summary)

This interaction is all part of the multimedia concept. Games and other forms of computer entertainment rely heavily on multimedia to make the experience seem more lifelike.

Drawing from several of the most popular multimedia development programs, such as Action! and Compell, it shows how multimedia can be used in a variety of ways, such as House Finder and Garden Center.

Using multimedia to teach multimedia is a natural. With Professor Multimedia offering lessons at your own pace, you'll come away with a better understanding of this technology and all the wonderful things it offers.

### Full Text (400 words)

Copyright Austin American Statesman Mar 21, 1994

There are many programs that claim they use multimedia, but eachone is different. What exactly is multimedia, and how can you useit?

The generally accepted definition: a program that's able to use different media to convey messages and ideas.

In this case, the term "media" is defined as a single method of revealing information. For example, on the screen you see visual media; from the speakers you hear sound media.

Each can be broken down further. For example, visual media can be displayed as full-motion video, drawn animation or still images. Examples of sound media include spoken words, music or sound effects, such as birds chirping or a car engine roaring.

Combining some or all of these to convey an idea - be it a sales presentation or an educational lesson - is at the heart of multimedia.

Another element is interaction. You probably have seen one of those touch screens in a kiosk at a mall. Touching the screen might start a small video window in which a salesperson points out where you can buy selected products, while another portion of the screen displays an animated map showing your location and how to get to the store. It may even print out a discount coupon to encourage a sale.

This interaction is all part of the multimedia concept. Games and other forms of computer entertainment rely heavily on multimedia to make the experience seem more lifelike.

If you would like to learn more and experience multimedia on your computer, an interesting product called Professor Multimedia, from Individual Software, offers a wide variety of multimedia presentations.

Drawing from several of the most popular multimedia development programs, such as Action! and Compell, it shows how multimedia can be used in a variety of ways, such as House Finder and Garden Center.

In the same way that you see movie trailers in the theaters, Professor offers samplings from several popular multimedia programs such as Microsoft's Dinosaurs; Broderbund's Arthur's Teacher Trouble, an educational program for young children;

<http://web.archive.org/web/20010417032300/craigslist.com/sfo/acc/911568.html>

and The Total Heart from the Mayo Clinic.

Using multimedia to teach multimedia is a natural. With Professor Multimedia offering lessons at your own pace, you'll come away with a better understanding of this technology and all the wonderful things it offers.

Available only for IBM-compatible computers running Windows, Professor Multimedia sells for \$79.95.

For more information, contact Individual Software at (800) 331-3313 or (510) 734-6767.

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